Wasp Labeler User Manual

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Wasp Labeler Install Key _____
(Printed on shipped material)

Wasp Labeler Registration Key _____
(Obtained from www.waspbarcode.com\register)

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Chapter 1 - Getting Started

1.1 Introduction

Thank you for your purchase of the Wasp Labeler barcode creation software. This topic contains information that will help familiarize you with barcodes and show you how to create customized barcodes. The Introductory Materials section contains important information you should familiarize yourself with prior to creating barcodes.

Introductory Materials

Wasp Labeler Capabilities
What is a Barcode?
Navigating the Main Screen
Creating a Static Label
Binding a Data Source to an Object
Using String Builder to Concatenate Data
Creating Enumerated Labels
Example Labels
Barcode Symbology Reference

After you have read the introductory materials, you are ready to start using Wasp Labeler. Click on the link below to go to the next step in the Getting Started section.

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1.2 Getting Started - Wasp Labeler Capabilities

Wasp Labeler is a professional label generation application designed to meet the most demanding barcode labeling and printing requirements. Easily generate barcode labels, asset or inventory labels, address labels and envelopes with PostNet Zip Codes, ID badge labels, business checks, and date and time stamps for perishable goods, then print your labels from any local or network Windows printer. You can import data directly from your corporate databases or you can create a new Microsoft Access database. In addition, Wasp Labeler can generate compliance labels for practically every industry.

Wasp Labeler:

- Supports the following barcode languages:

  AztecCode, Codabar, Code 128, Code 39, Code 93, DataMatrix, EanJan13, EanJan8, Interleaved2of5, Isbn, Itf14, MaxiCode, MicroPDF417, MicroQRCode, Msi, PDF417, Postnet, QRCode, GS1, GS1Stacked, GS1Omnidirectional, GS1Truncated, GS1Expanded, GS1Limited, UCCEAN128, UPC-A, UPC-E

  For a description of each of these symbologies, please refer to the **Barcode Symbology Reference**.

- Prints the most popular 2D barcodes:

  DataMatrix, MaxiCode, MicroPDF, MicroQRCode, PDF417, Aztec Code and QRCode

- Supports any laser, dot matrix, thermal or ink jet printer using a standard Windows printer driver.

- Allows you to edit multiple labels concurrently.

- Allows you to input data on the label at print time.

- Capable of advanced graphic resizing and graphic rotation.

- Allows import of bitmap files (*.bmp), JPEG (*.jpg, *.jpeg, *.jpe, *jfif), PNG (*.png), TIFF (*.tiff, *.tif), GIF (*.gif), ICON (*ico).

- Allows connecting to external databases:

  Microsoft Access, Microsoft SQL Server, ODBC data sources,
  QuickBooks® as well as comma separated files or other delimited text files.

- Allows import of text files or Microsoft Excel worksheets.

- Allows import of QuickBooks® data (version 2008 or later).

- Includes over 100 label layout templates.

Wasp Labeler supports drawing objects including text, lines, rectangles, ellipses, and barcodes. Each of these drawing objects has full edit capabilities including draw style, size, position and color. In addition, practically any picture can be imported onto the label design, linked to the original file, or retrieved from a database.

Wasp Labeler supports Static, Serialization, Prompt at Print Time, External Data Source, Bind to Another Object, and Date/Time for objects. The 'Prompt at Print Time' feature is used to interactively enter information onto the label at print time. The 'External Data Source' feature allows you to import, view, and edit information from the most common databases and allows your Text and Bar Code objects to retrieve their source value from an external file. In addition, Wasp Labeler provides the capability to quickly create your own database.

1.3 Getting Started - What is a Barcode?

A barcode is a graphical representation of a set of numeric or alphanumeric characters that can be read by a barcode scanner.

1234 becomes:

.

Whse1 becomes:

.

Assigning a permanent barcode to each site, location, item, supplier and customer creates an environment where a mobile device can be used to easily keep track of inventory movements and alleviates the problem of data-entry errors.

Barcodes get wider with the amount of numbers and characters you want represented by them. In other words, the width is determined by the amount of numbers or characters represented by the barcode. Some barcode scanners have a limited width that they can read. If you have very long item numbers or location numbers you may need to reconsider the numbering scheme or the scanner you are using. Also be aware that many of the less expensive barcode readers do not read barcodes that are bent, at an angle, are too small or are damaged. Consider the possible disposition of your barcodes before choosing a scanner.

There are many different barcode formats or symbologies. The different symbologies can be thought of as different fonts. The same characters are represented by different symbologies in different ways. For example, the two symbologies below represent the same information (Whse1).

These different formats exist to provide ways to compress more data into a smaller space, to represent a different set of characters or to enable scanning at different angles or distances.

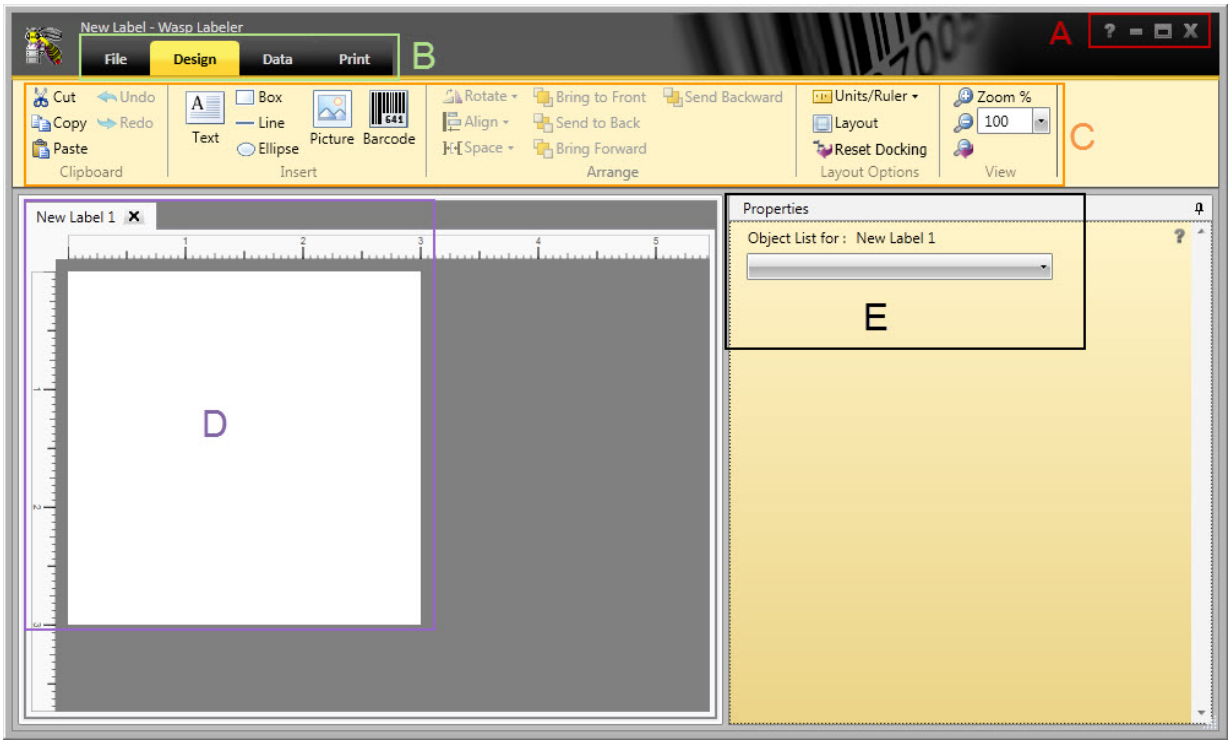
When using Wasp Labeler, barcodes should be printed using a high quality laser or ink jet printer, or a thermal label printer. You want the barcode label to be high quality because low quality barcodes are harder to scan and usually do not last long. Wasp Labeler can print to a regular printer or a barcode printer.

1.4 Getting Started - Navigating the Main Screen

In this topic:

[Help/Resizing Icons](#)
  [Accessing Help](#)
  [Resizing/Minimizing Wasp Labeler](#)
[Tabs](#)
[Icon Toolbar](#)
[Design Window](#)
[Properties Box](#)
  [Hide/Show the Properties Box](#)
  [Move the Properties Box](#)

This topic provides a brief overview of Wasp Labeler's **Main** screen. The **Main** screen provides access to all of the features and functions you will need to create customized labels or to create labels using the templates. Use this topic to help familiarize yourself with getting around in the application. Links to detailed instructions for using each function are provided throughout this topic.



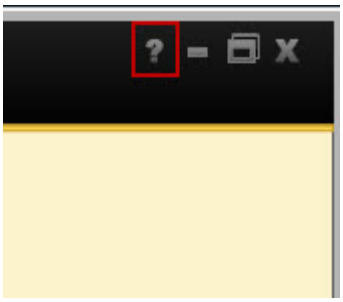
A: Help/Resizing Icons
B: Tabs
C: Icon Toolbar
D: Design Window
E: Properties Box

1.4.1 Section A: Help/Resizing Icons

This section contains icons that allow you to adjust the size of the Labeler screen, access this Help file or close the Labeler window.

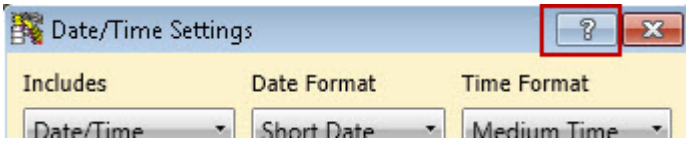
Accessing Help

Launching the Help File: You can launch this Help file from anywhere in the Labeler application by clicking the question mark icon in the top right of the screen. Using this method launches the Help with the topic related to the currently open screen/tab displayed. You can search for or navigate to other topics as needed.

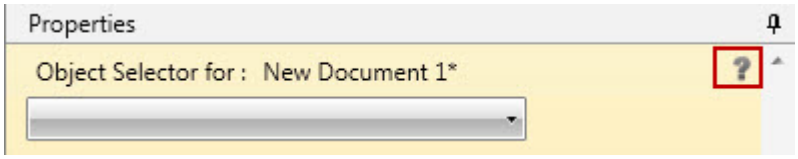


Context-Sensitive Help: You can access a Help topic specific to the screen or feature you are currently using by clicking on the small question mark arrow that appear on most screens and in the **Properties** box. Clicking the **Help** icon on the **Properties** box launches **Help** specific to the object you have selected. You can also launch context-sensitive help by hitting the F7 key on your keyboard.

Help Button Example - Screen



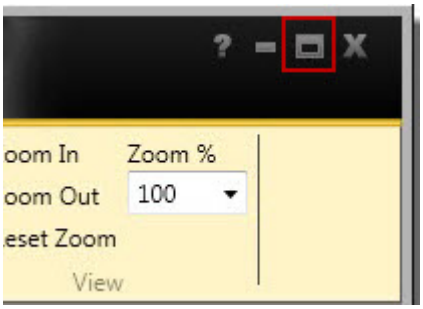
Help Button Example - Properties Box



Resizing/Minimizing Wasp Labeler

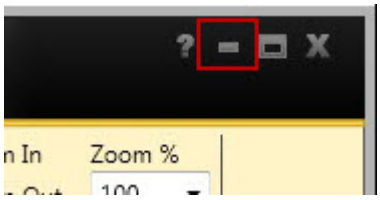
Wasp Labeler can be resized to fit your whole screen or reduced to appear as a portion of your screen.

To resize the window, click the icon in the top, right of the **Main** screen, as shown below:



The screen will reduce in size when the icon is clicked. You can resize the screen by dragging any of the corners or borders. Labeler will remember the size when it is closed and re-opened.

To minimize the screen and place it on the taskbar, click the minimize icon in the top, right of the **Main** screen, as shown below:



Labeler will be placed on your taskbar. To reopen it, click on the icon on your taskbar.

1.4.2 Section B: Tabs

File Tab:

The **File Tab** contains save, open, and close options. This tab also allows you to launch example labels and check for updates to your software. Click on an icon to access a function.

Design Tab:

The **Design Tab** contains all of the options for customizing your label. Click on an icon to access that function. The toolbar on this tab is divided into 5 sections:

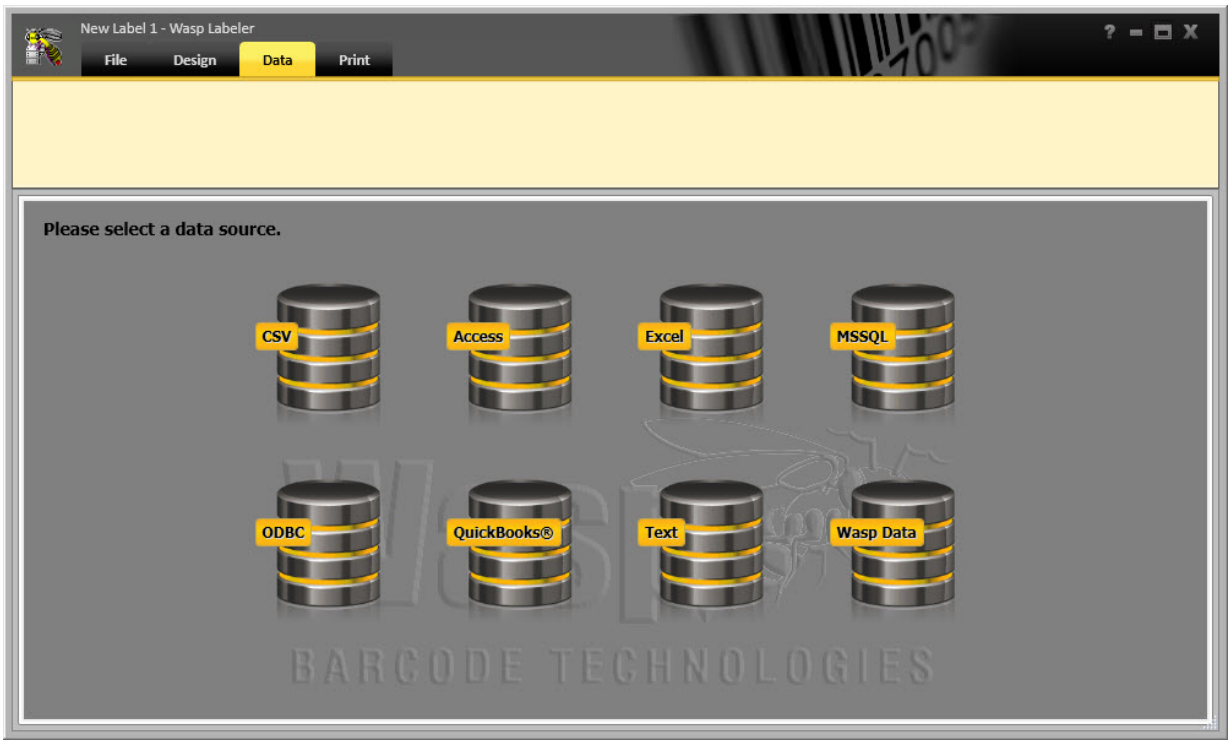
Clipboard - This section contains basic commands such as Cut, Copy, Paste, Undo and Redo.
Insert - The Insert options allow you to insert text, basic shapes, a picture or a barcode into your label.
Arrange - The Arrange menu allows for precision placement of objects or text you insert onto your label.

Layout Options - Use these options to change the layout of your label or to hide/show the ruler along the top and side of the label.
View - The View menu allows you to zoom in or out.

Changes you make will appear in the Label Design window.

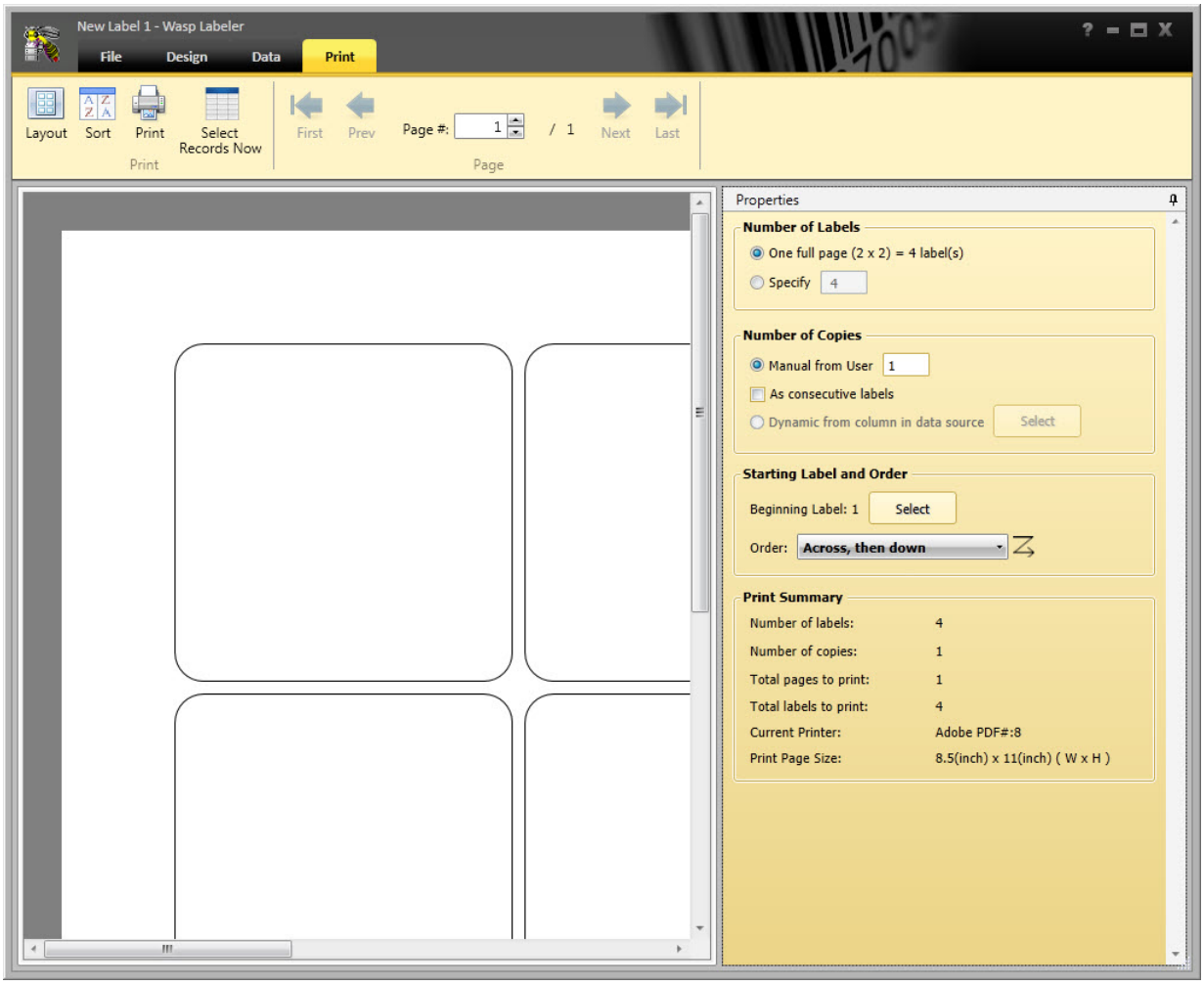
Data Tab:

The **Data Tab** allows you to add a database, spreadsheet, .csv file or other data source to your label project. You can then associate an object on your label, such as a text field or a barcode with the data source.



Print Tab:

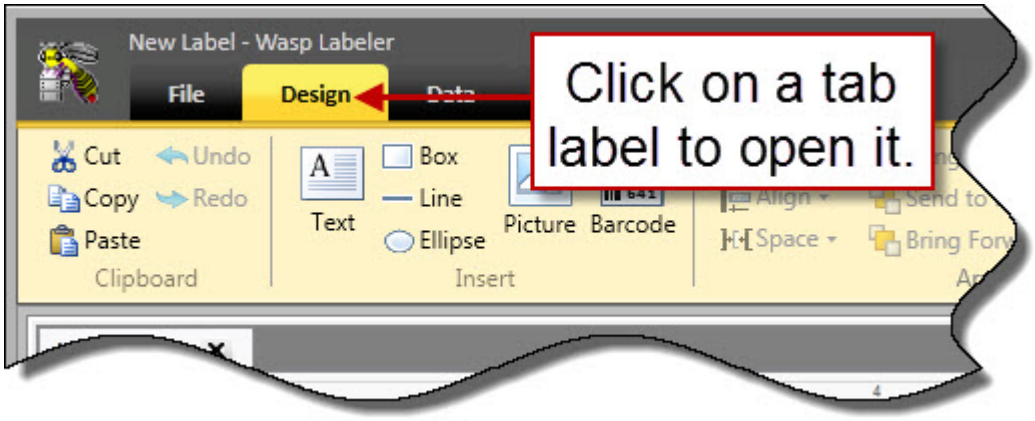
The **Print Tab** contains functions relating to printing your labels, including **Page Layout**.



1.4.3 Section C: Icon Toolbar

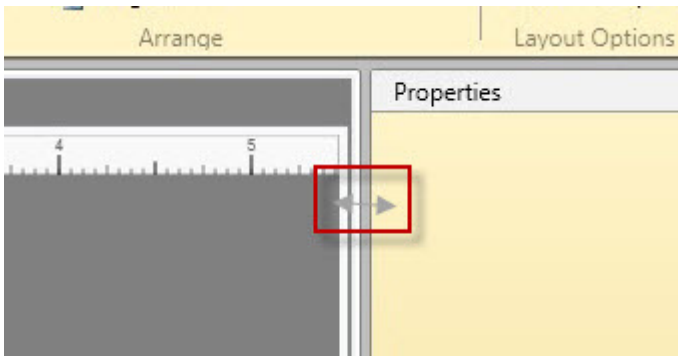
The tabs at the top of the **Main** screen allow you to switch between functionalities. The tabs act as a way to group Wasp Labeler's features together by task. For instance, the **File** tab contains functionality related to opening a new file, closing a file, saving a file, etc., while the **Design** tab contains functionality related to creating and designing your labels. When you first open Wasp Labeler, the **Design** tab is displayed and this is the tab you will probably use the most.

You can switch to a different tab by clicking on the desired tab label.



1.4.4 Section D: Design Window

The Wasp Labeler **Design** window, by default, shares space on the **Main** screen with the **Properties** box. You can **Hide the Properties** box entirely, or you can resize the **Design** window as needed. To resize the window, place your mouse over the dividing line between the **Design** window and the **Properties** box until your cursor turns into a double arrow, as shown below:



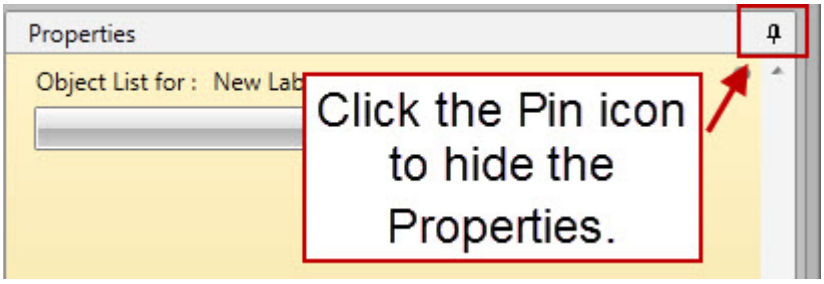
With the left button held down on your mouse, drag the dividing line either left or right. Keep in mind that you cannot expand the **Design** window over the **Properties** box. When the **Design** window reaches it's maximum width, it will stop moving. If you need more design area, **hide the Properties Box**.

1.4.5 Section E: Properties Box

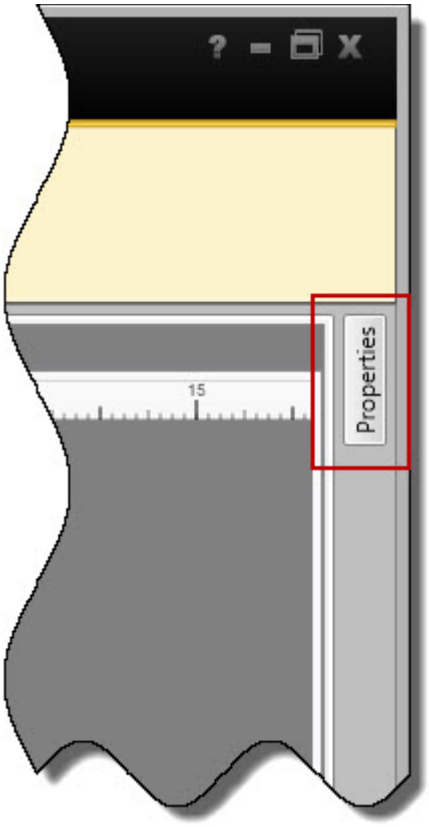
The **Properties** box contains options specific to the type of object you have selected in the **Design** window (barcode, text box, picture or drawing object). You can hide the **Properties** box or "dock" it in a different location as needed.

Hide/Show the Properties Box

The **Properties** box is displayed on the **Main** screen by default. This box displays information relating to the tab you are currently using. For example, on the **Design** tab, the **Properties** box displays the various options available to the selected object.. If you want to have a larger design area, you can hide the **Properties** box by clicking on the **Pin** icon in the right-hand corner of the box, as shown below:



When the **Properties** box is hidden, a label will appear on the right side of the screen as shown below:

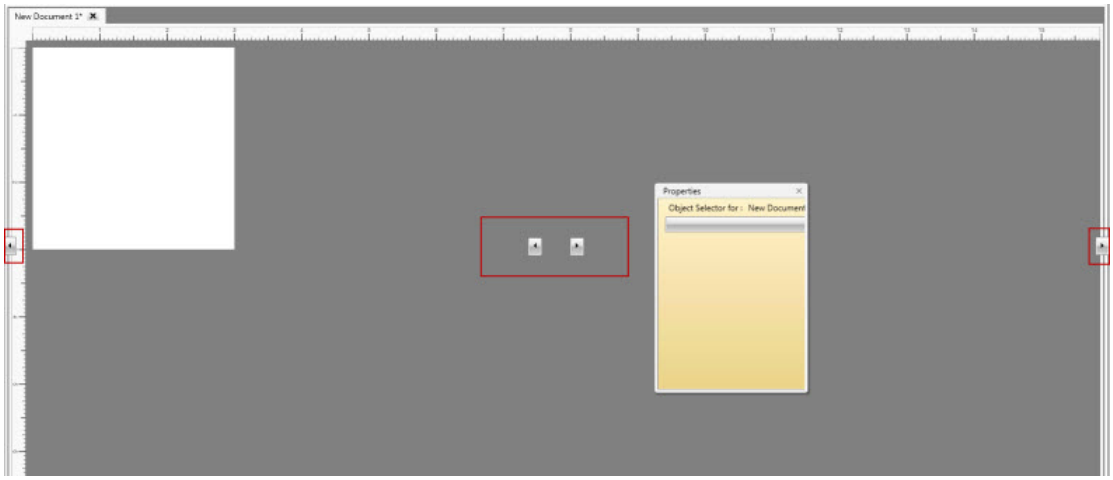


Move the Properties Box

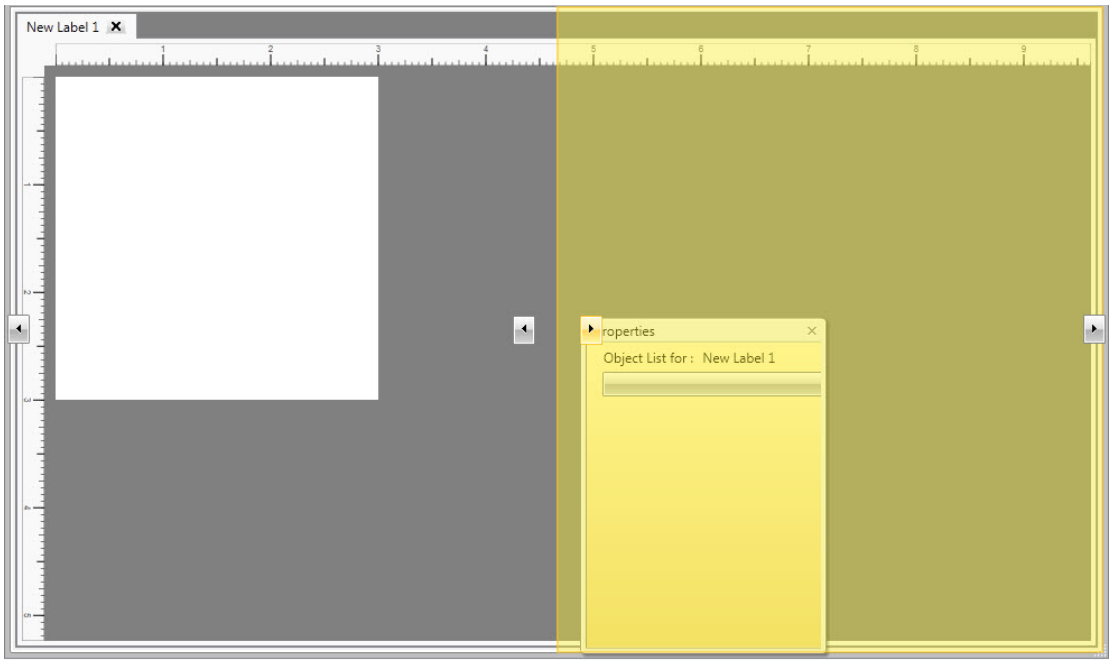
By default the **Properties Box** is docked on the right side of the Labeler screen. You can move, or redock, the **Properties Box** to the center-left, center-right or left side of the screen as needed.

1. Click on the top of the **Properties Box** and drag it. The box will undock from it's current location and appear as a small, floating box similar to the example shown below:

2. Drag the box to the center or left of the screen. Arrows appear on the screen showing you all dockable locations as shown below:



3. Drag the box to an arrow.. The screen will highlight yellow indicating the area in which the box will appear if docked there. In the example shown below, the box would appear from the center of the window to the right.



You can then let go of the box and it will dock where indicated.

To move the **Properties** box back to the default location, click the **Reset Docking** icon on the **Design Tab** toolbar.

1.5 Getting Started - Creating a Static Label

Now that you are familiar with the basics of moving around the **Main** screen, you can begin creating your labels. This topic will take you through the steps to create the most basic label - a static barcode label. A static label means the information on it does not change. The label does not pull information from a database, isn't serialized, etc.

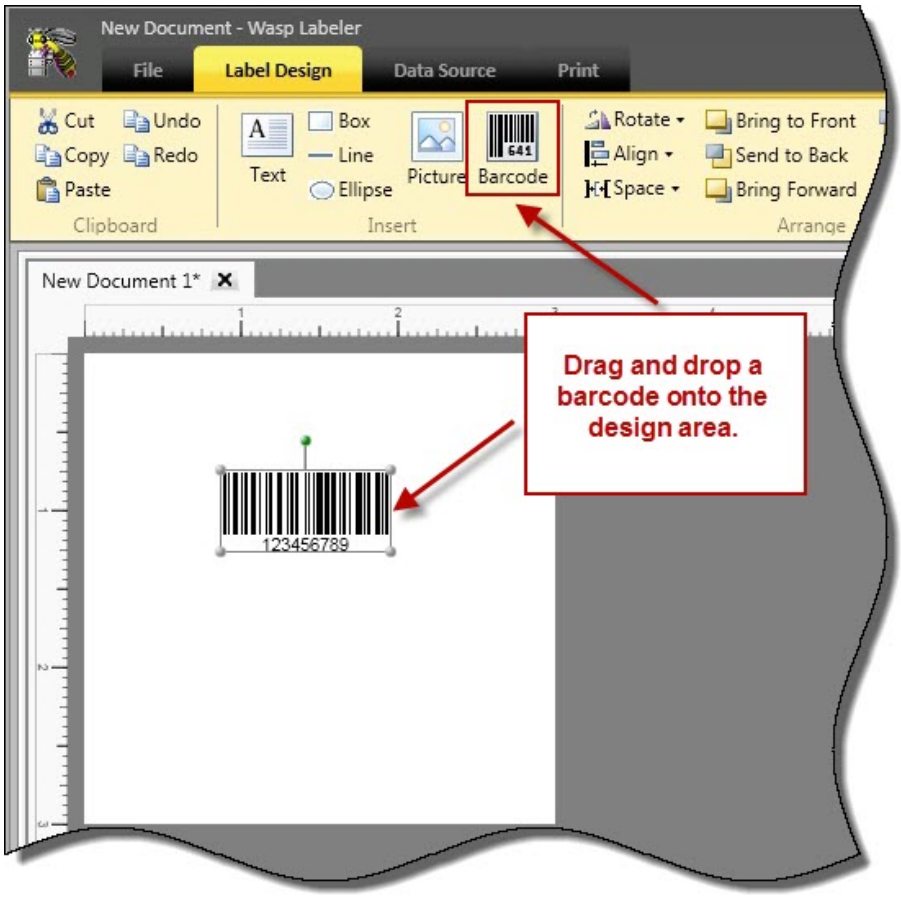
For this example, we are going to create one name badge label containing a standard Code 128 barcode and a text field containing a name and employee ID number. Links are provided in each step to detailed information regarding the tabs and screens.

1. **Open a document:**

   Open a **New Document** and make sure the **Design** tab is selected.

2. **Add a barcode:**

   Click on the barcode icon and drag it to the **Design** window.



You can move the barcode around on your label as needed by clicking on it and dragging it where you want it.

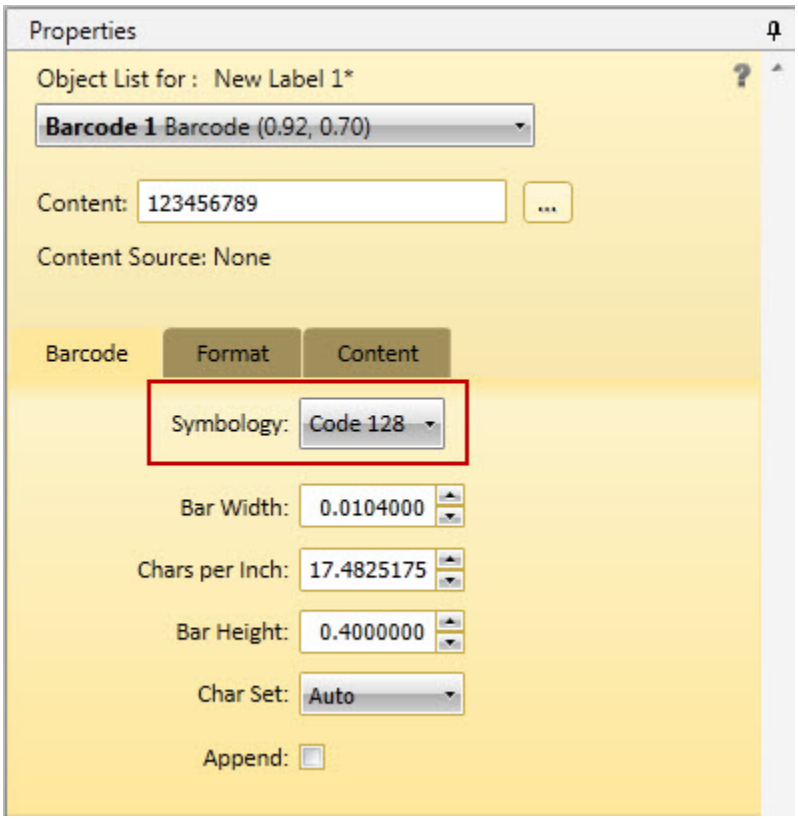
3. Define your barcode:

By default, a Code128 barcode with content123456789 will be placed onto your label. Use the **Properties** box to select the appropriate barcode and enter the content (what you want encoded in the barcode).

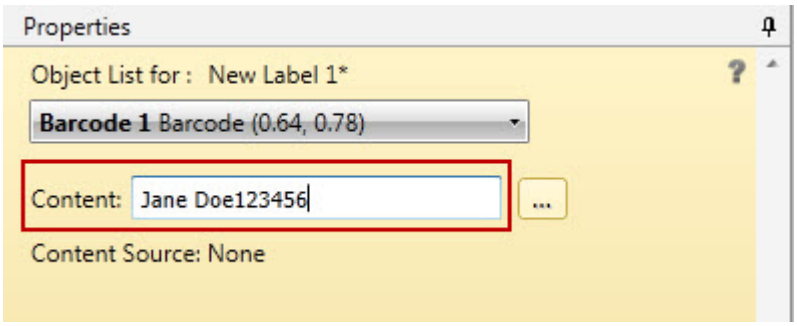
a. Make sure the barcode is selected in the **Design** window.

b. Click the **Barcode** tab in the **Properties** box.

c. Make sure Code 128 is selected in the **Symbology** drop down box.

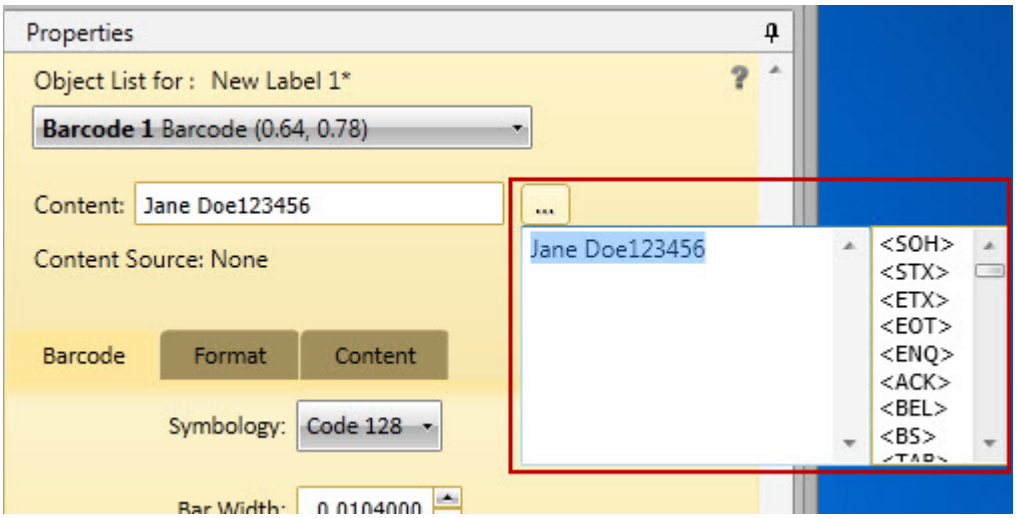


d. Enter the data you want encoded in the barcode into the **Content** box. In this case, we want the employee name and employee ID number so entered Jane Doe123456 into the **Content** box.

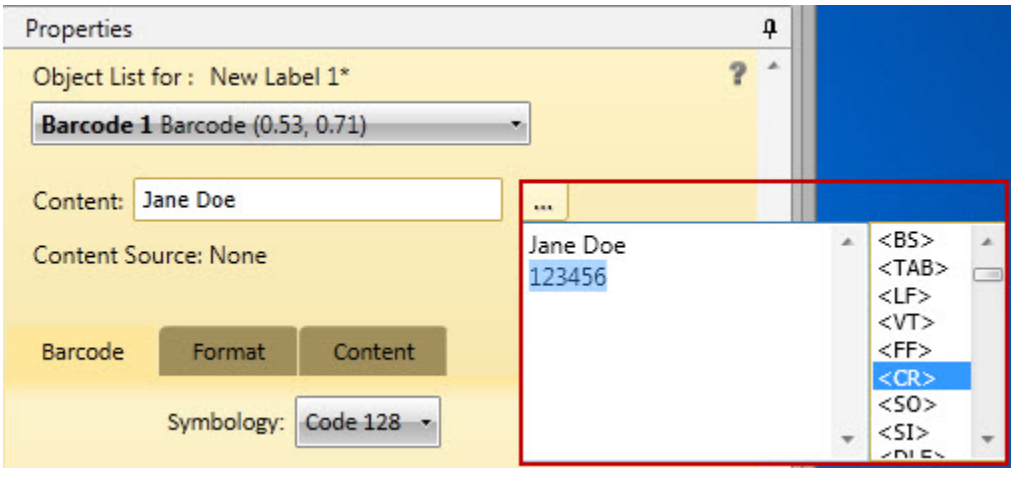


Note that your label changes to display Jane Doe123456 below the barcode.

e. Now that we have the content in the barcode, we can specify how it should be formatted. In this case, we want the employee ID number to appear below the employee name. To do this, click the ellipse (...) button to the right of the **Content** field. The **Special Characters** menu option appears.



Place your cursor where you want the break to occur. Here we will place the cursor after the e in Doe. Then click the **Special Characters** button. A list of all available special characters appears. Scroll through the list and select **<CR>** (carriage return). Now your data will appear as follows:



Note: For a description of the ASCII Special Characters, please refer to the topic **ASCII Special Character Codes**.

The barcode on your design label will look similar to the following:

4. Add additional objects to your label:

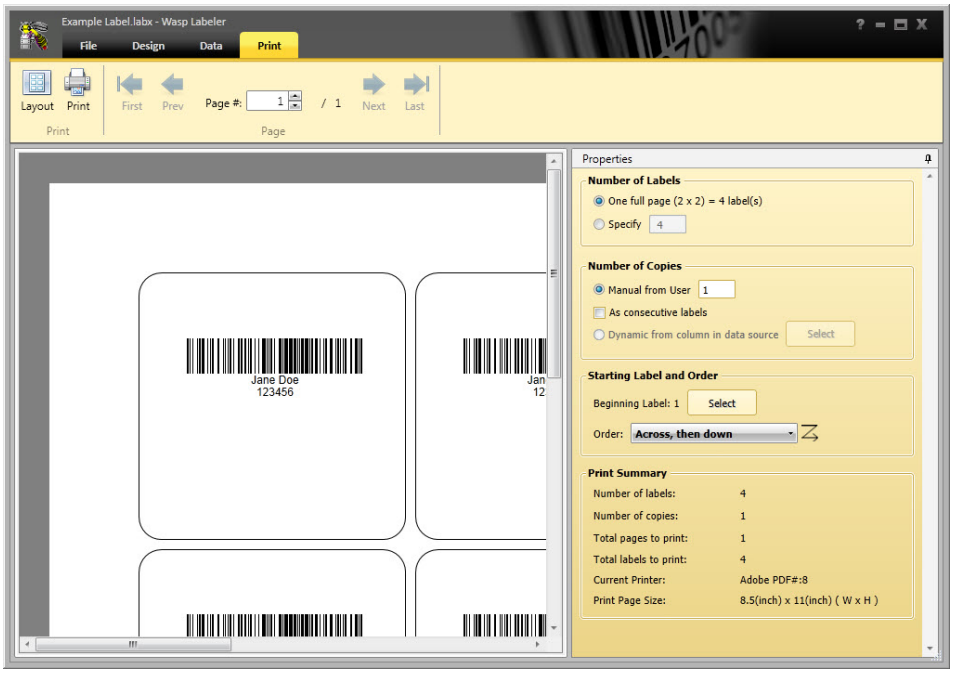
You can include additional objects on your label as needed. In the case of the name badge we are creating in this example, a graphic such as a picture of the employee or a company logo might be included. To add objects, you will follow the same steps you used for adding a barcode. Click on the icon of the object you want to add and drag it to your label.

5. Save your label:

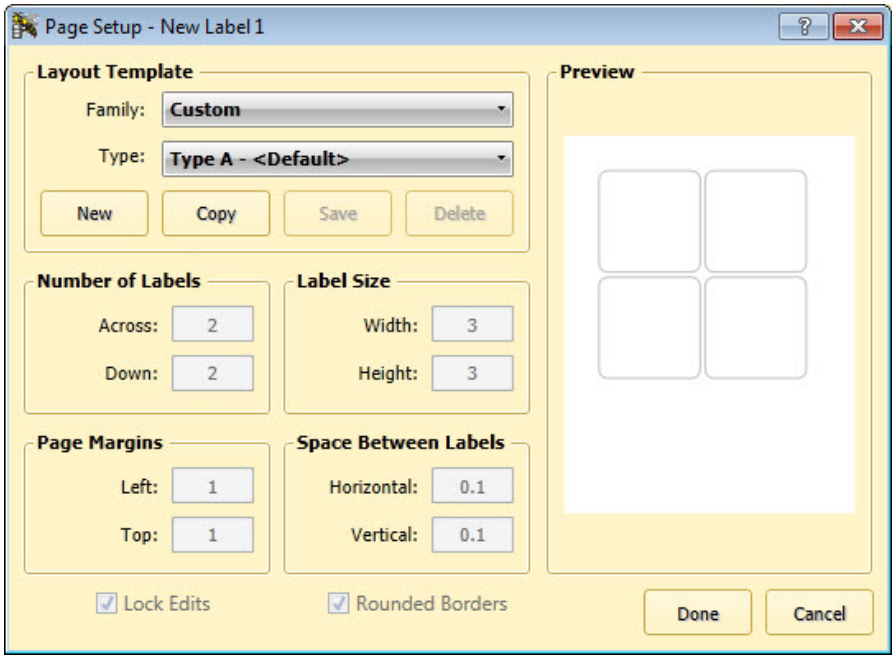
It is a good idea to save your label periodically so you won't lose any information in the event of an unexpected shutdown. To save your Label, click the **File tab**. Select **Save** from the toolbar, then select a name and location for your label. You can also save by pressing **CTRL + S** on your keyboard to save the label.

6. Choose the label stock on which you want to print:

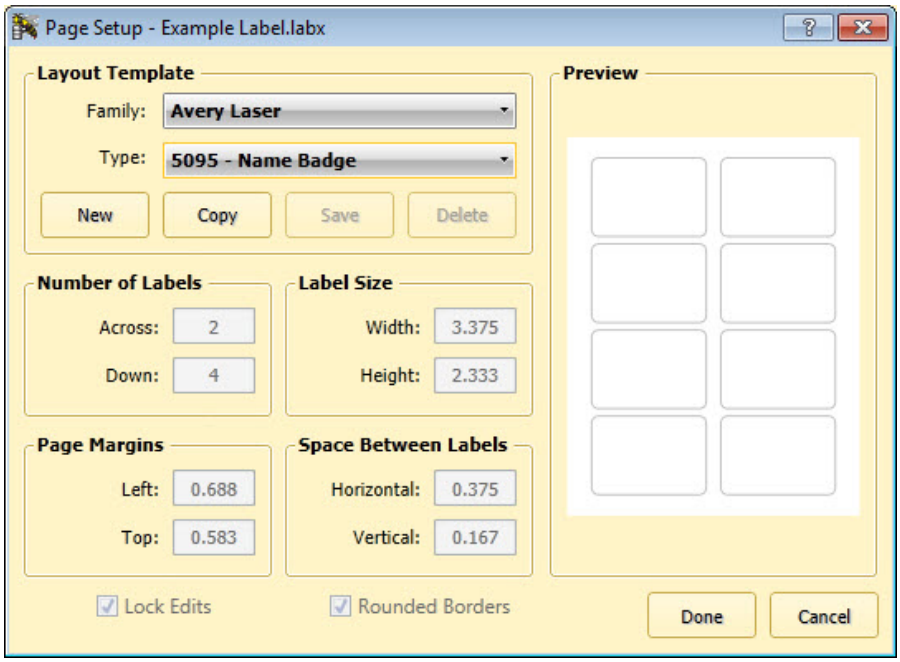
When you have your label designed the way you want, you can print it to the label printer of your choice. You can select the label stock on the **Print tab**. When you open the **Print** tab, an example of how your label will print is displayed as shown below:



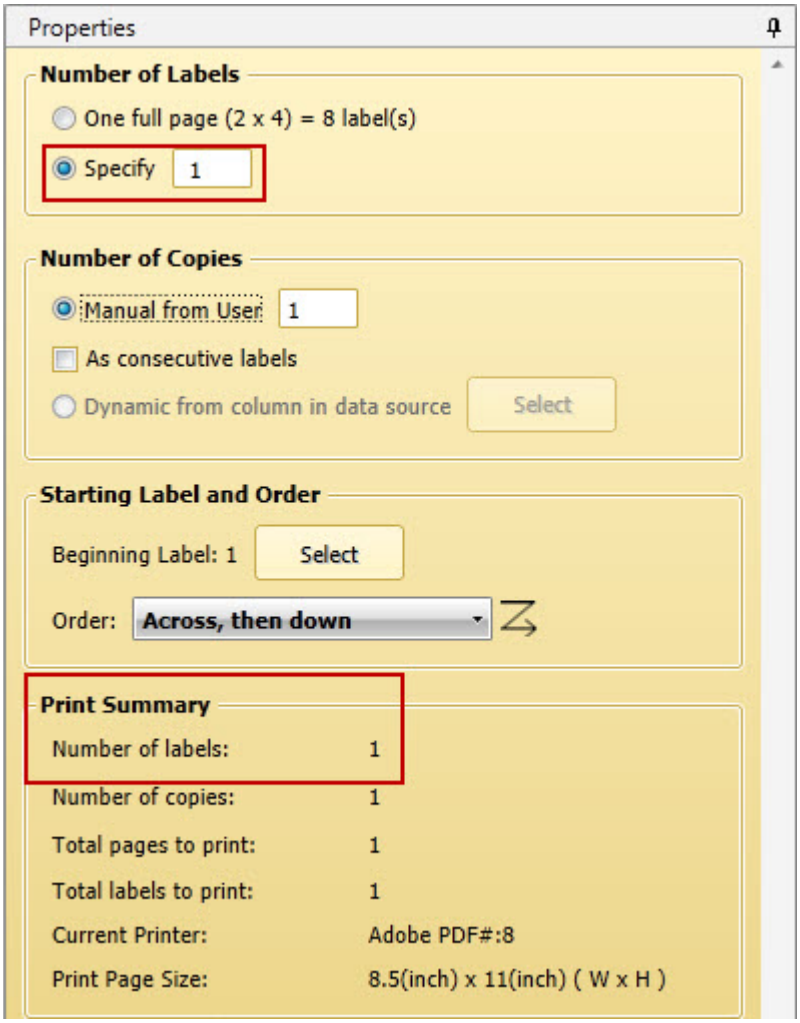
The example in the screen shot above shows a layout of 4 labels per page. To change the type of label, click the **Layout** button on the toolbar. The **Page Setup** screen appears:



The **Page Setup** screen allows you to choose a different label template or create custom templates. The template should match the label stock you are using. For our example label, we want to print just one employee badge for Jane Doe. Let's assume our example company uses a laser printer with Avery name badge labels for the employee badges. In this case, we should select Avery Laser from the **Family** drop down and Name Badge from the **Type** drop down. The screen will now look like this:



Click **Done** to close the **Page Setup** screen. Notice that the **Print Preview** window changes based on the **Family** and **Type** of label you selected. The **Properties** box indicates that 8 labels will be printed, because this particular type of label (Avery Name Badge) has 8 labels per page. We just want to print one label, so in the **Number of Labels** section select **Specify** and enter 1 as shown below:


Properties
Number of Labels
One full page (2 x 4) = 8 label(s)
Specify 1
Number of Copies
Manual from User 1
As consecutive labels
Dynamic from column in data source
Select
Starting Label and Order
Beginning Label: 1
Select
Order: Across, then down
Print Summary
Number of labels: 1
Number of copies: 1
Total pages to print: 1
Total labels to print: 1
Current Printer: Adobe PDF#:8
Print Page Size: 8.5(inch) x 11(inch) (W x H)

7. **Print your label:**

   Now you are ready to print your label. **Click the Print button on the Print tab toolbar**. The standard Windows Print screen will appear allowing you to select a printer.

That's it! You've created a static barcode label. You can move on to the next step:

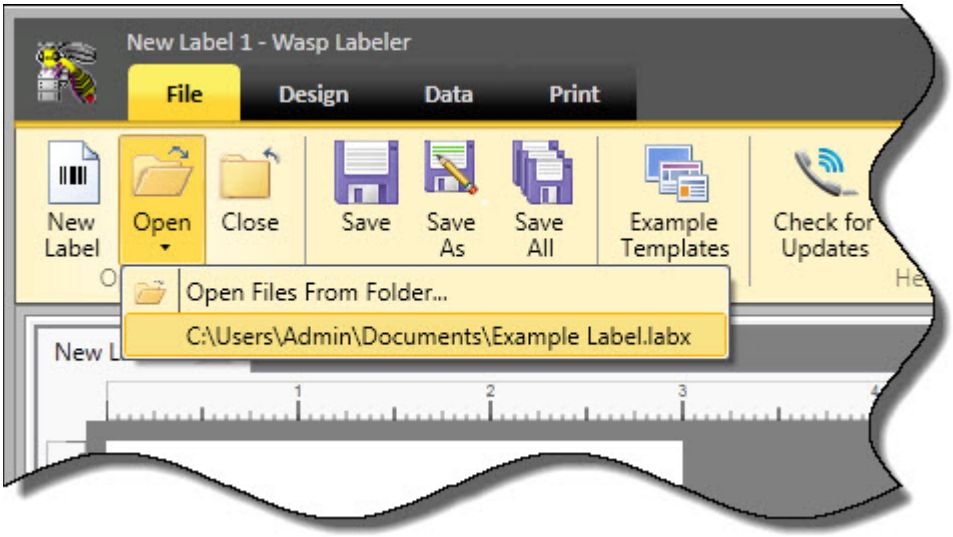
1.6 Getting Started - Binding a Data Source to an Object

Now that you can create a basic label (see **Getting Started - Creating a Static Label**), let's try binding a data source to an object. This allows you to create one label template, attach a database to it, then let Labeler pull information from the database when printing. For example, if you are creating employee badges, you can create one template badge, then bind a database containing all employee names and ID numbers to objects on your label. When printing, Labeler will pull the information from the database and place it in the associated (bound) barcode or text box on the badge.

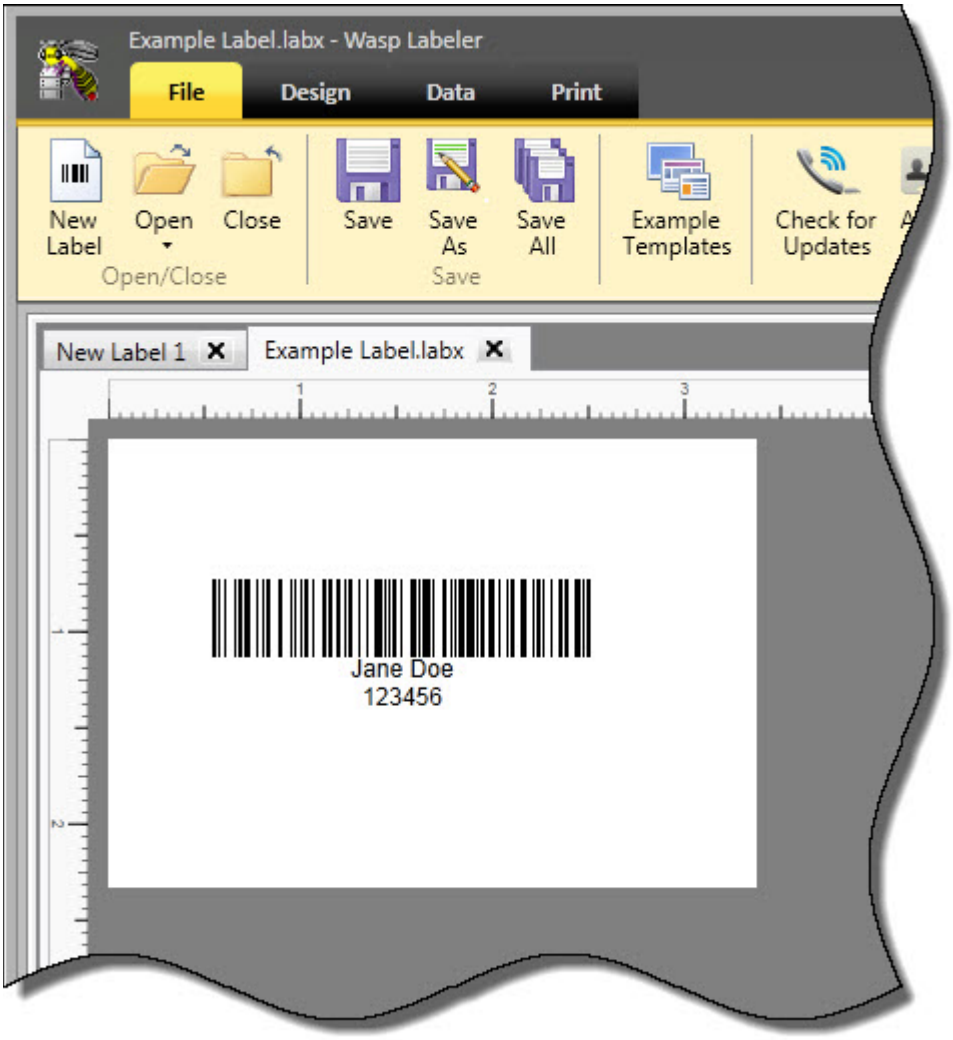
This topic will show you the basic steps for attaching a database to your label using the Static Label you created in the previous step.

1. **Open your label.**

   On the **File** tab, select the **Open** icon.

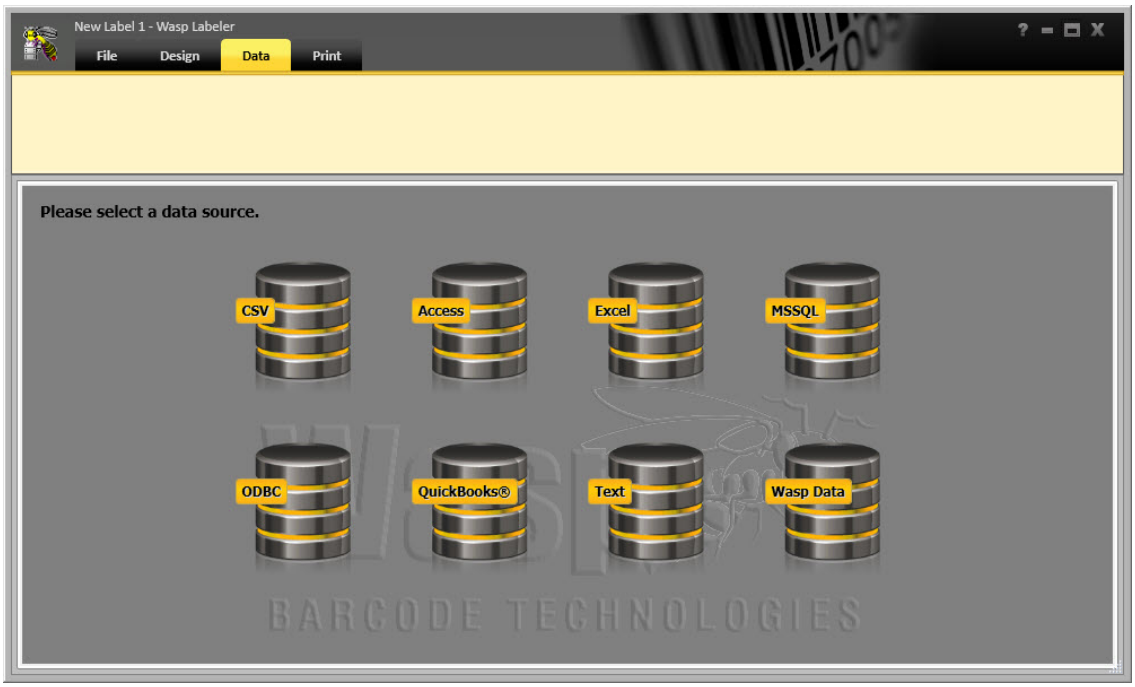


   Recently opened files will appear in the drop down. If you see your label listed, click on it to open. If you do not see your label in the list, click **Open Files From Folder**. Browse to your label and select it. It will appear in the **Design** window.



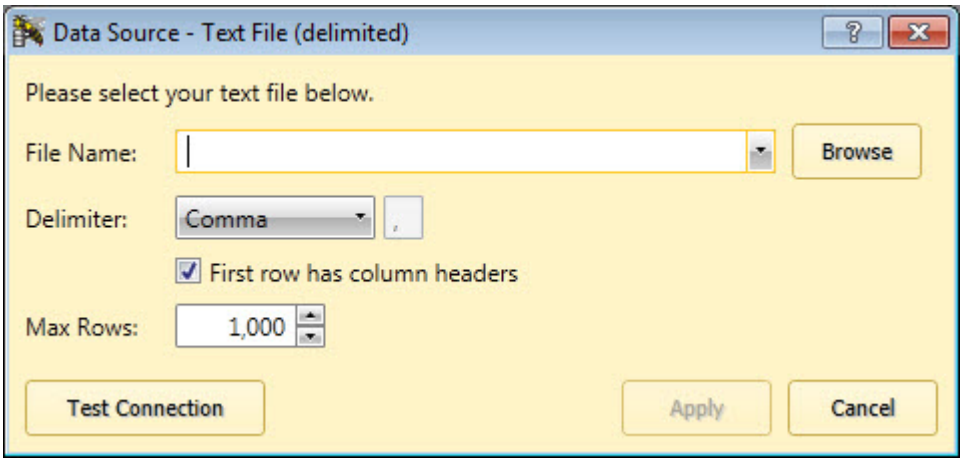
2. **Select an External Data Source on the Data tab.**

   We'll add a data source to this project using the **Data** tab. Your data source options are listed on the **Data** tab.



Select the type of database you want to add. For this example, we want to add a .txt file that contains a list of employee ids, and names so click on **Text**.

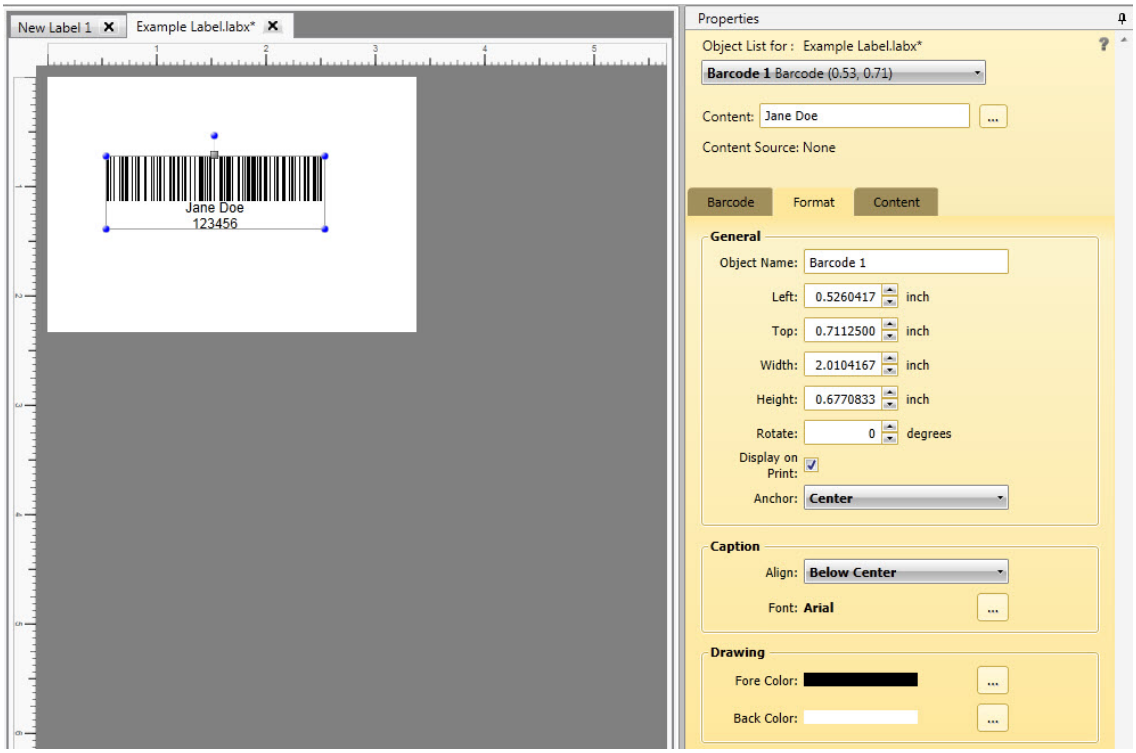
The **Data Source - Text File (delimited)** screen appears:



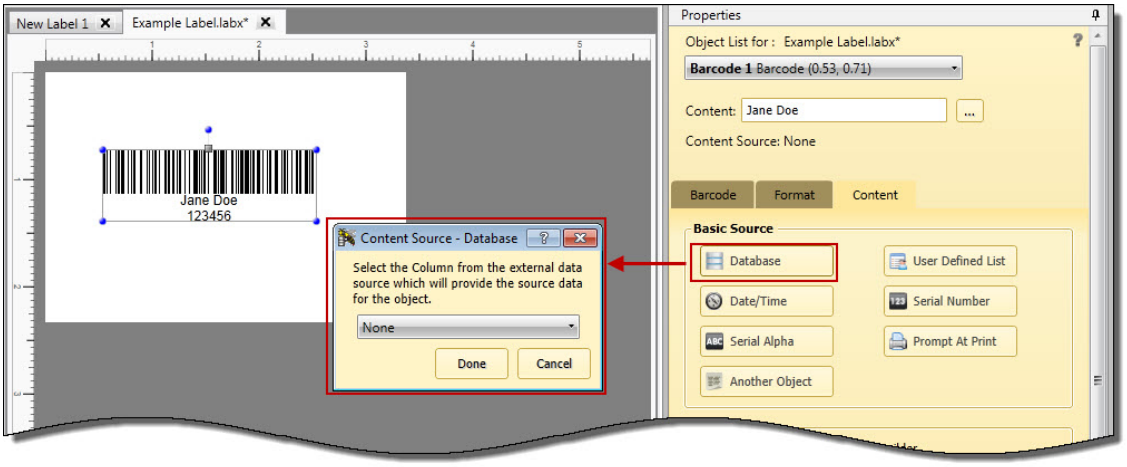
Select your file and the associated **Delimiter**, then click **Apply**. For detailed instructions on adding a **Text** file, see the topic **Connecting to a Text File**.

3. **Bind an object on the label to a column in the data source.**

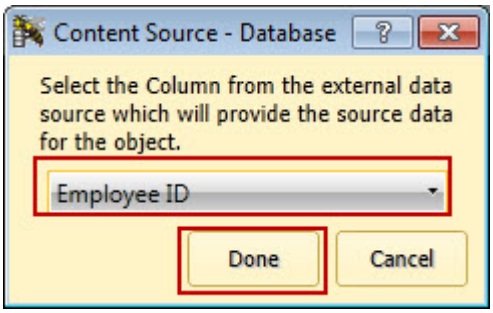
On the **Design** tab, select the object to which you want to bind data. The property options for the selected object appear in the Properties box.



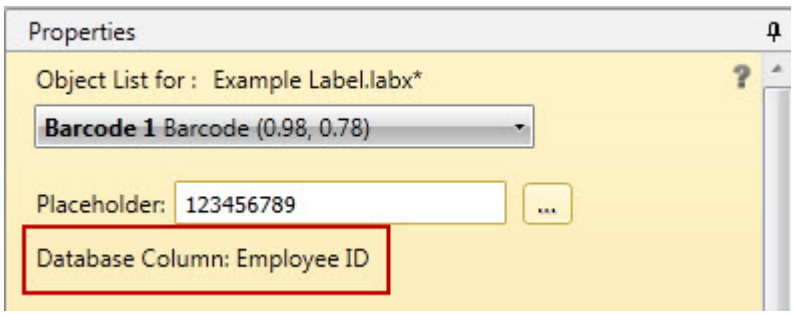
Here we have selected the barcode object and want to bind it to the Employee ID column in the data source. On the **Properties box > Content tab**, click the **Database** button. A window appears displaying all available columns from the data source.



Select the appropriate column from the drop down list and click **Done**.


Content Source - Database
Select the Column from the external data source which will provide the source data for the object.
Employee ID
Done
Cancel

Notice that the **Properties Box** now indicates that this object is using the Employee ID column as the data source.



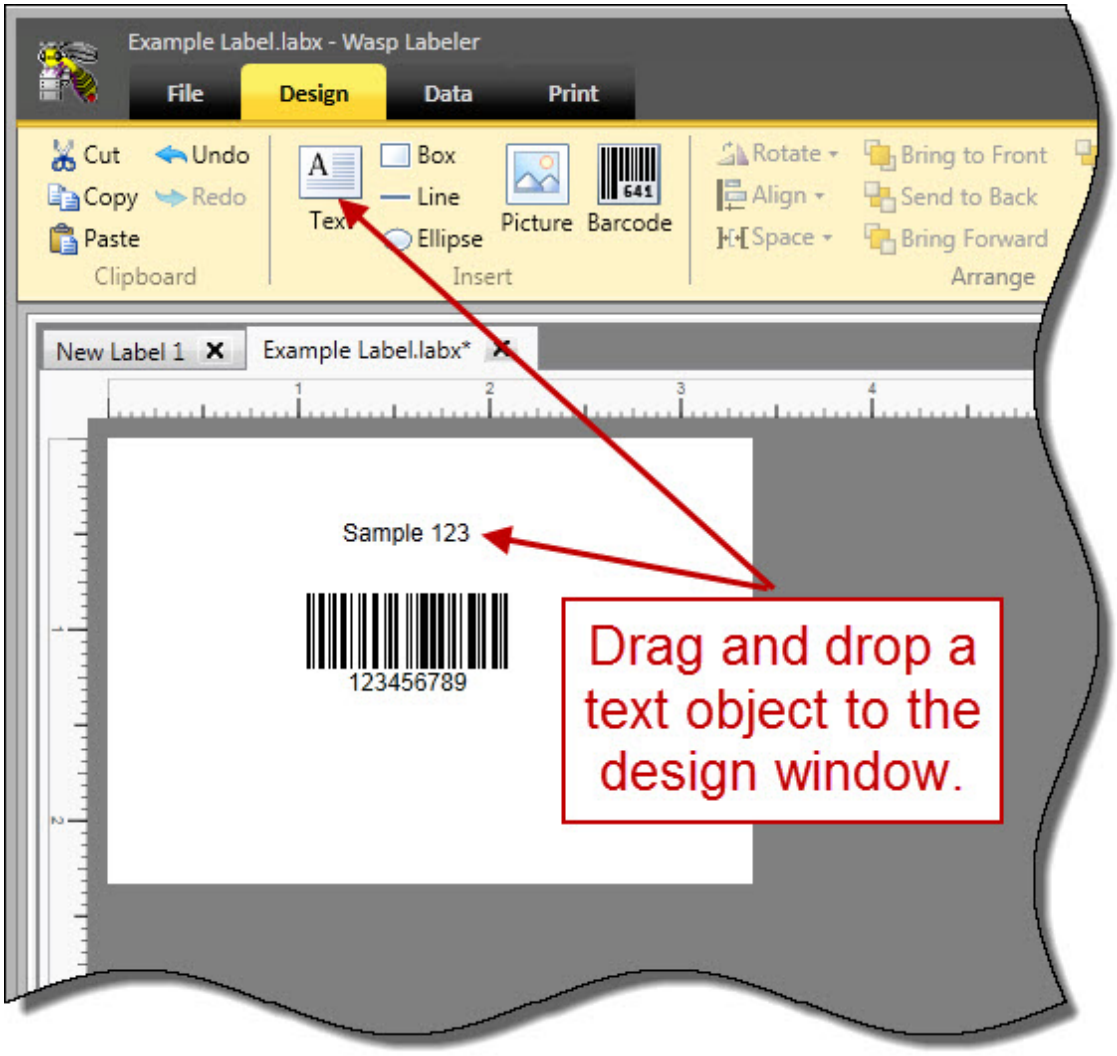
That's all there is to adding a data source and binding an object to it. You can continue binding objects to columns or other data sources (Serialized Numbers or Letters, Data/Time, Etc.) as needed.

1.7 Getting Started - Using String Builder to Concatenate Data

In the previous example we learned how to add a data source to the label project and bind an object to a column within that data source. Now let's learn how to concatenate, or combine, two different columns. Joined data is called a "string". Creating strings allows you to bind data from two different columns in your data source to one object. Continuing the Employee Badge example: we previously bound the column containing the Employee ID to a barcode, now let's bind the Employee First Name and Employee Last Name columns to a text box.

1. **Add a Text Box Object.**

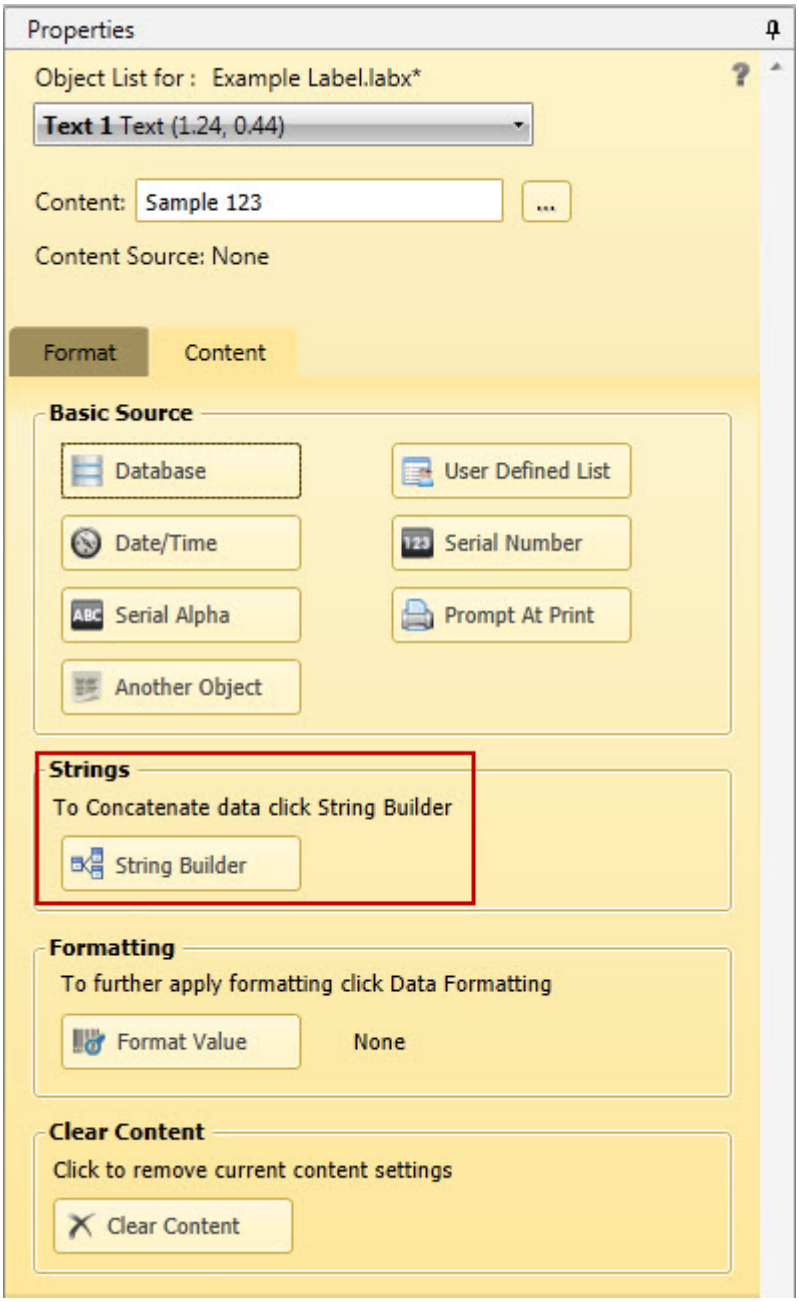
   Click on the barcode icon and drag it to the **Design** window.



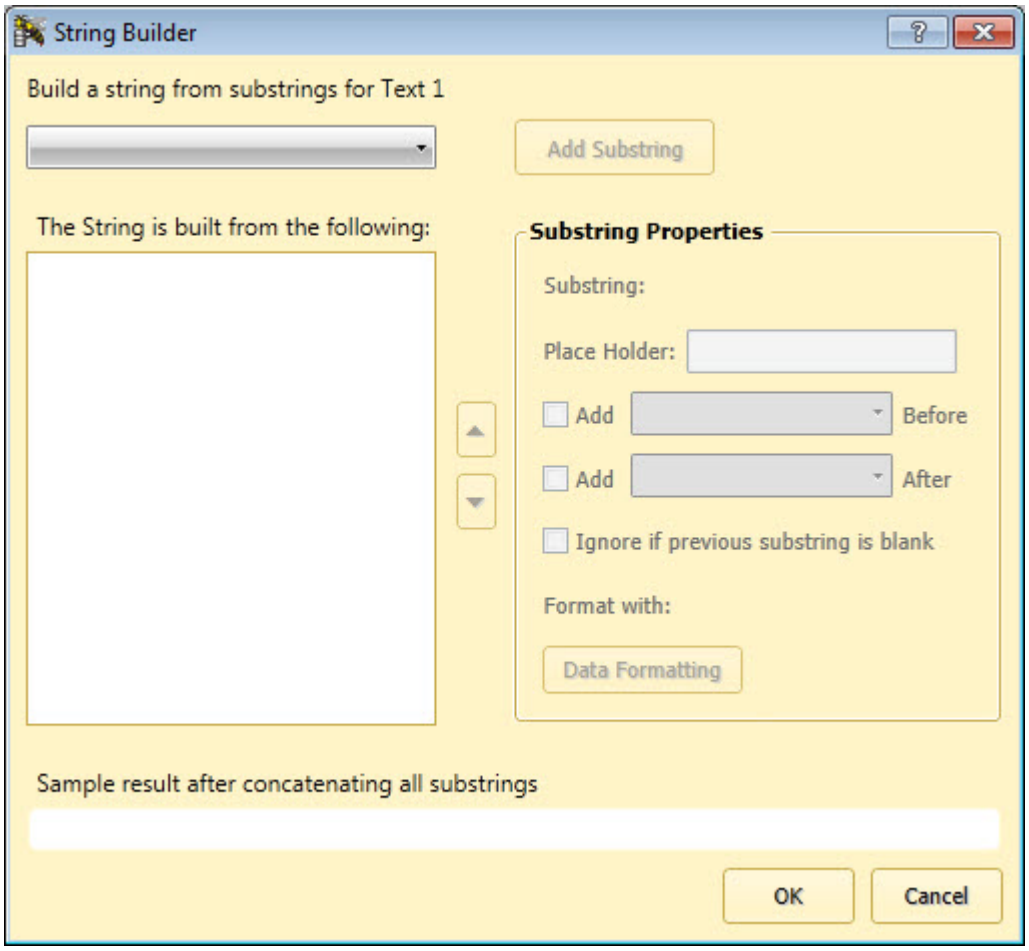
   The **Properties Box** updates with options for the text box.

2. **Create a String using String Builder.**

   On the **Properties Box > Content tab**, click the **String Builder** button.



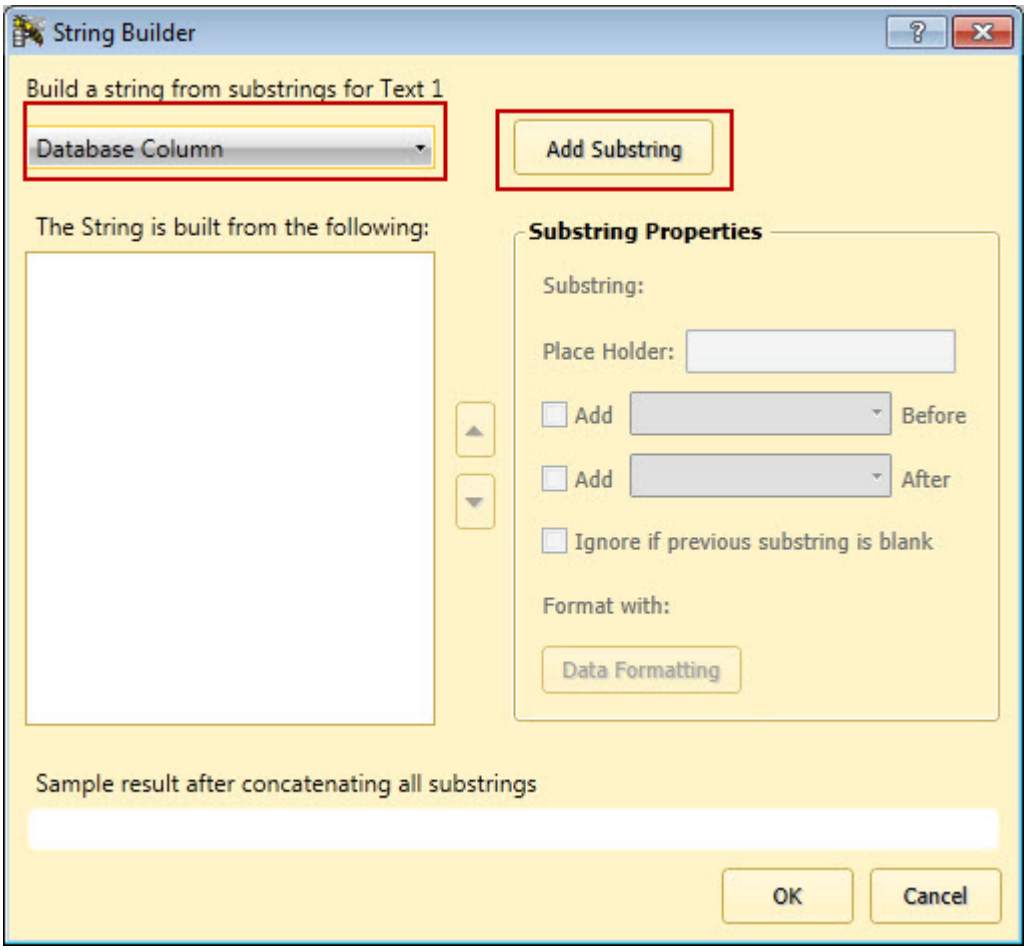
The **String Builder** screen appears.



For this example we want to create a string containing two database columns: Employee Last Name and Employee First Name. Let's assume we want the Last Name first, then a comma and a space, followed by the First Name. The result should look like this:

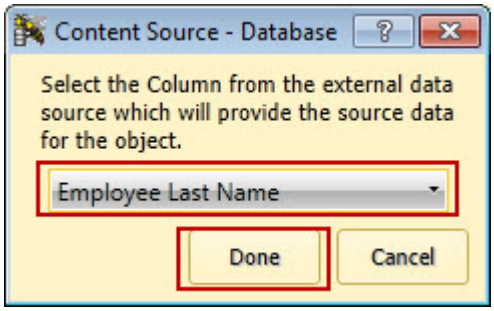
Doe, John

a. First, select **Database Column** from the drop down, then click the **Add Substring** button.

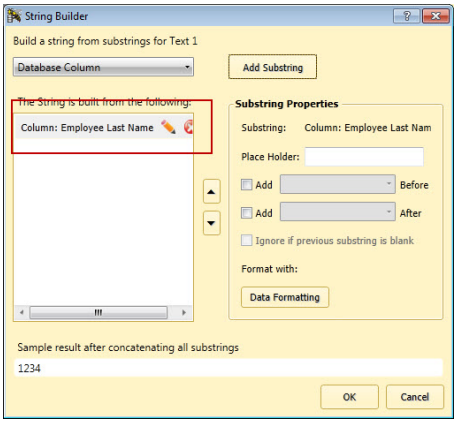


The **Data Source - Database** screen appears allowing you to select a column.

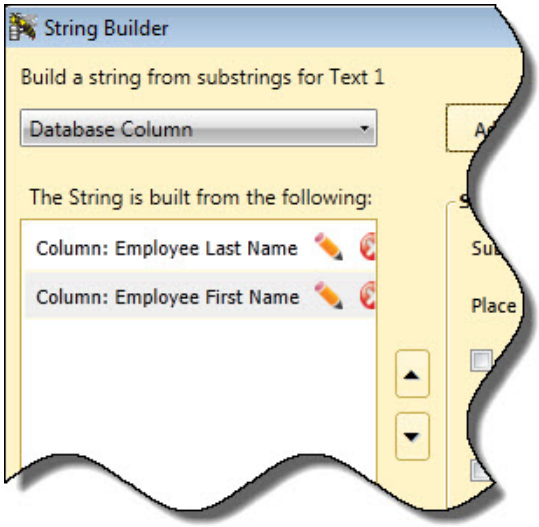
b. Select Employee Last Name, then click **Done**.


Content Source - Database
Select the Column from the external data source which will provide the source data for the object.
Employee Last Name
Done
Cancel

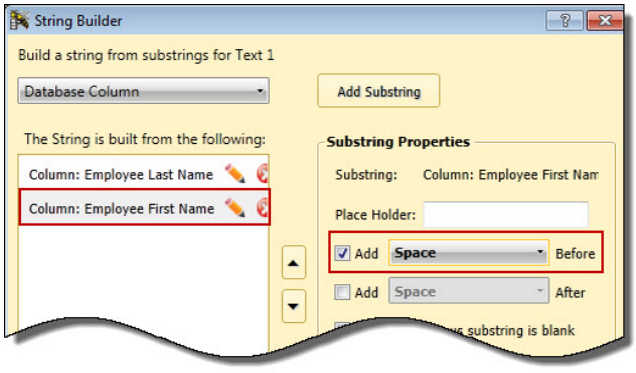
The substring appears in the window as shown:



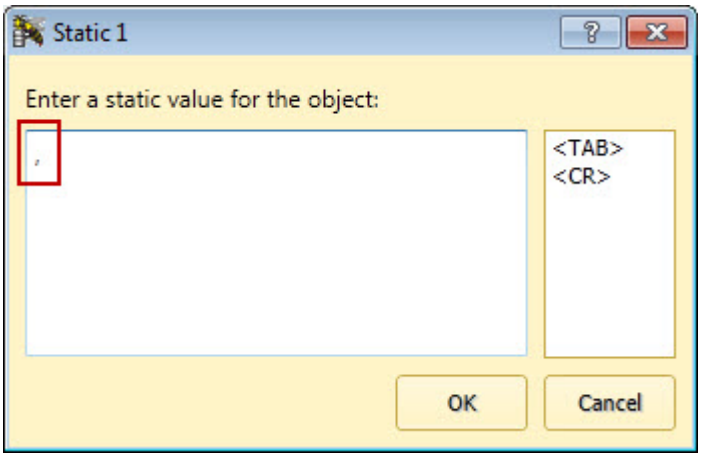
c. Now repeat Steps a and b, but this time select Employee First Name from the drop down list and click **Done**. Another substring will be added.


String Builder
Build a string from substrings for Text 1
Database Column
The String is built from the following:
Column: Employee Last Name
Column: Employee First Name
Place

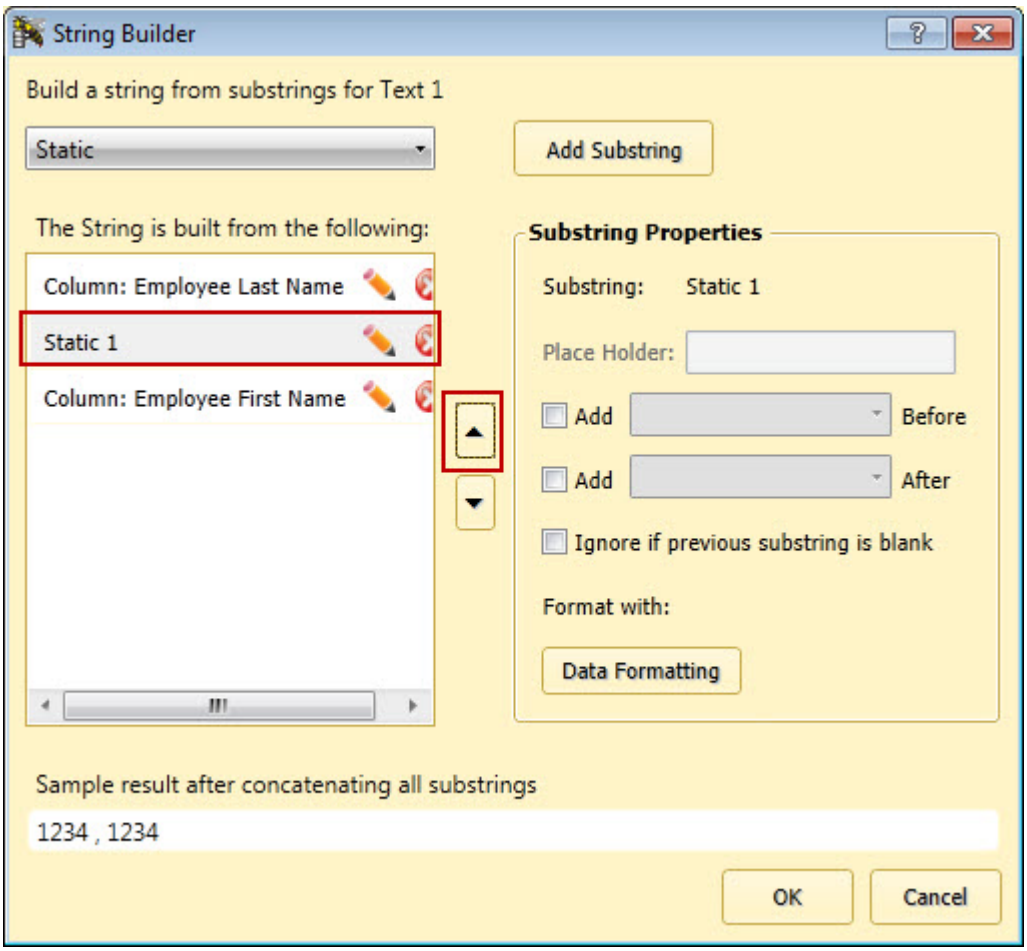
d. Highlight the substring **Column: Employee First Name** and select **Add Space Before** in the **Substring Properties** box.



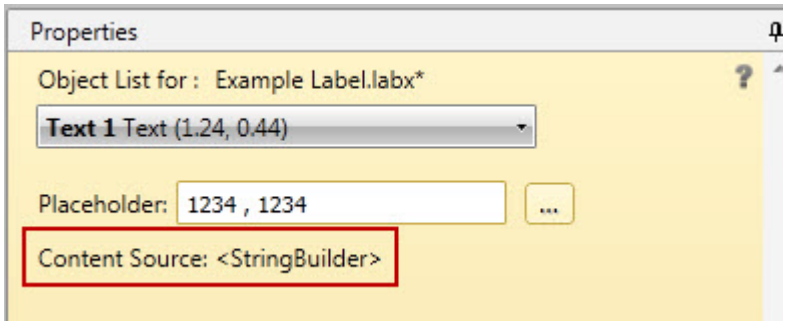
e. Now we just need to add the comma. To do this, we'll add a static substring with the character "," in it. Select **Static** from the drop down menu, then click **Add Substring.** The **Static** content screen appears. Enter a comma in the text box provided, then click **OK**.



f. The **Static** substring appears in the **String** list. Highlight it and click the up arrow icon once to move it between the Employee Last Name and Employee First Name substrings.



g. Notice that your sample data at the bottom of the **String Builder** screen now shows the correct formatting for your data. Click **OK** to save your new string. The **Content Source** for your text box now shows <StringBuilder>.



1.8 Getting Started - Creating Enumerated Labels

A common need when printing labels is a "label counter" or "copy counter". Counters tell you what number out of a set each label represents: i.e. 1 of 12, 2 of 12, 3 of 12, etc.

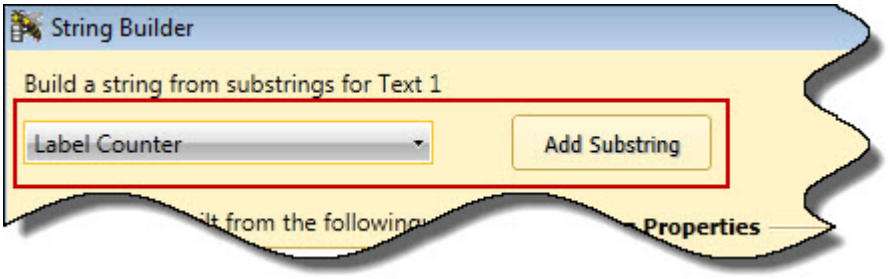
You can create these counters using a text field and the **String Builder** screen. You have four counter field options on the **String Builder** screen:

Label Counter - This counts the number of unique labels.
Label Total - The total number of unique labels.
Copies Counter - This counts the number of copies of unique labels.
Copies Total - The total number of copies.

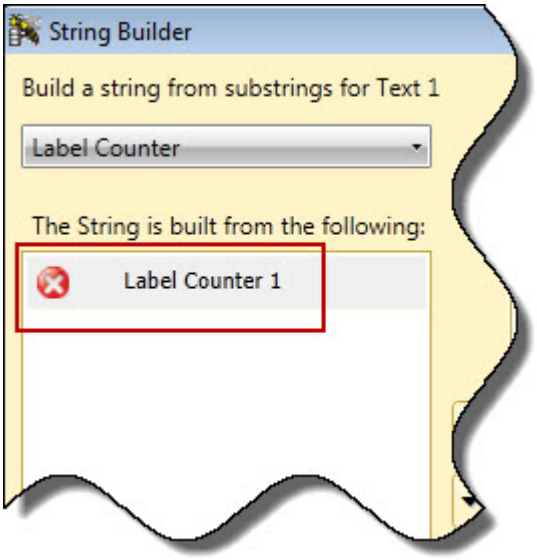
Example One: Your warehouse wants to create inventory labels for a set of 20 printers. Each printer is the same make and model, but has a unique serial number. You need a label that has a barcode connected to your inventory database containing the inventory number for the printer type, a serialized barcode representing the serial number and a label counter.

Steps:

1. **Add your Inventory Database** to the label project.
2. **Insert a barcode** onto your label and **connect it to the inventory number column in your inventory database**.
3. Insert another barcode and **bind it to Serial Number**. Make sure the **Last value as next print job's seed** checkbox is selected on the **Serial Number Settings** screen.
4. **Add a textbox** to your label.
5. With the textbox selected, click **String Builder** in the **Properties Box > Content tab**. The **String Builder** screen appears.
6. On the **String Builder** screen, select **Label Counter**, then click **Add Substring**.



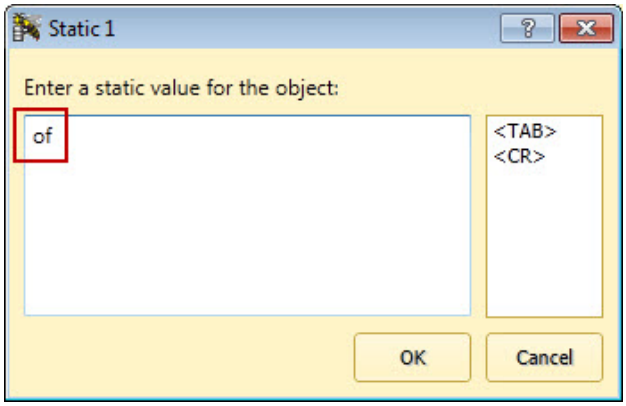
The substring will be added to the list as shown below:


String Builder
Build a string from substrings for Text 1
Label Counter
The String is built from the following:
Label Counter 1

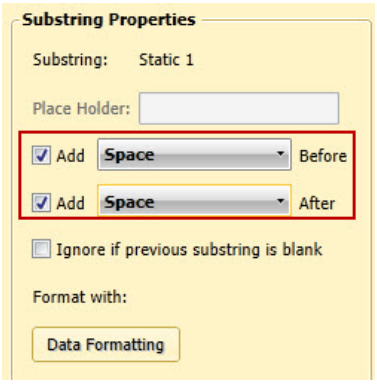
7. Now select **Static** from the drop down and click **Add Substring**.

   The **Static** window appears.

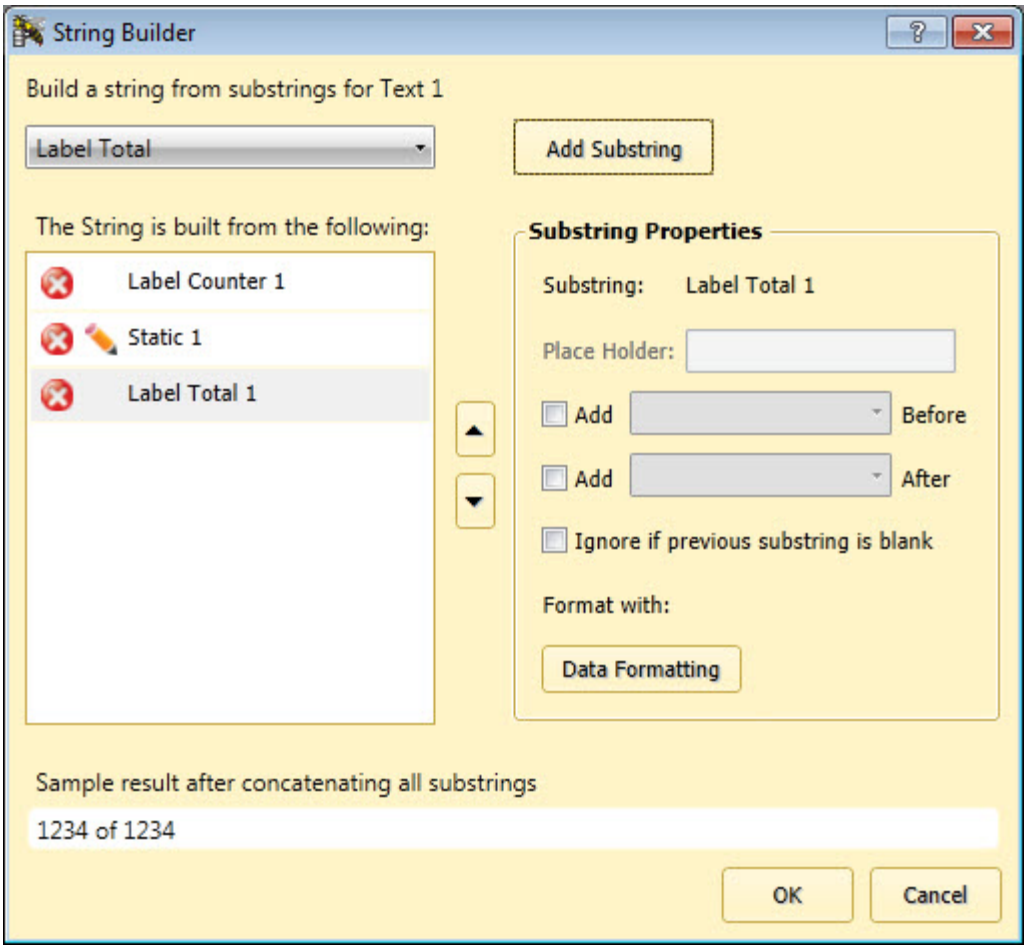
8. Highlight the sample text and type "of" (without quotation marks), then click **OK**.



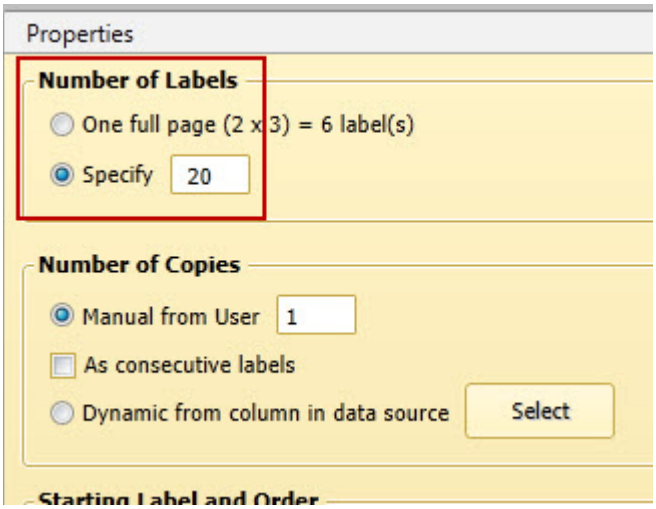
9. With your **Static** substring highlighted in the list, select **Add > SPACE Before** and **Add > SPACE After**.



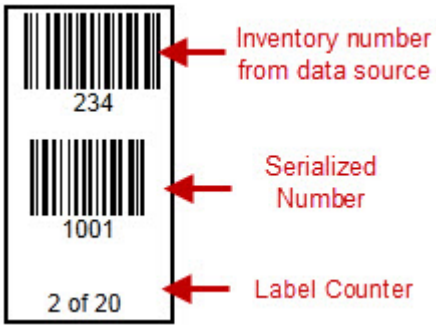
10. Finally, select **Label Total** from the drop down list and click **Add Substring**. **Label Total** will be added to your substring list. Your screen should look similar to the following:



11. On the **Print** tab enter 20 in the **Number of Labels > Specify** field.



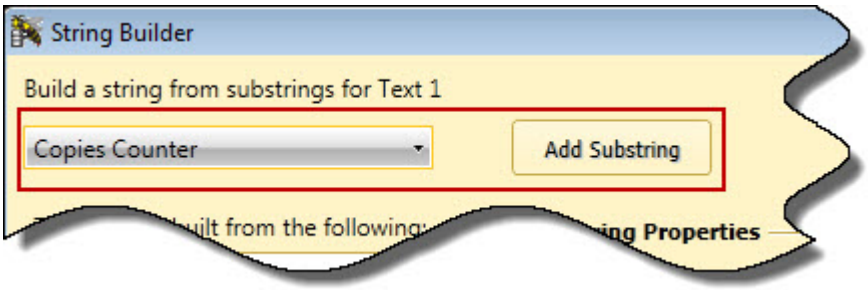
Now your label will look similar to the following:



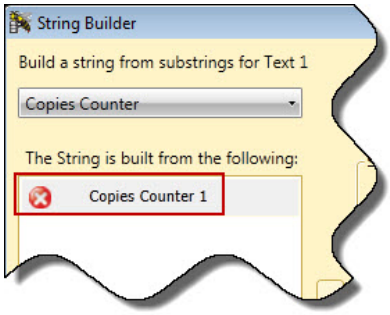
Example Two: You are sending a shipment to a customer. The items will be packed into two separate boxes. You need identical labels on each box with a counter indicating 1 of 2 and 2 of 2.

Steps:

1. Create your label as desired
2. **Add a textbox** to your label.
3. With the textbox selected, click **String Builder** in the **Properties Box > Content tab**. The **String Builder** screen appears.
4. On the **String Builder** screen, select **Copies Counter**, then click **Add Substring**.



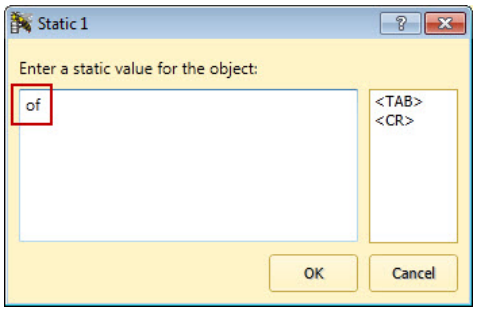
The substring will be added to the list as shown below:


String Builder
Build a string from substrings for Text 1
Copies Counter
The String is built from the following:
Copies Counter 1

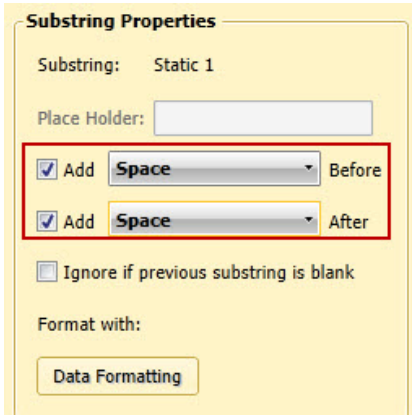
5. Now select **Static** from the drop down and click **Add Substring**.

The **Static** window appears.

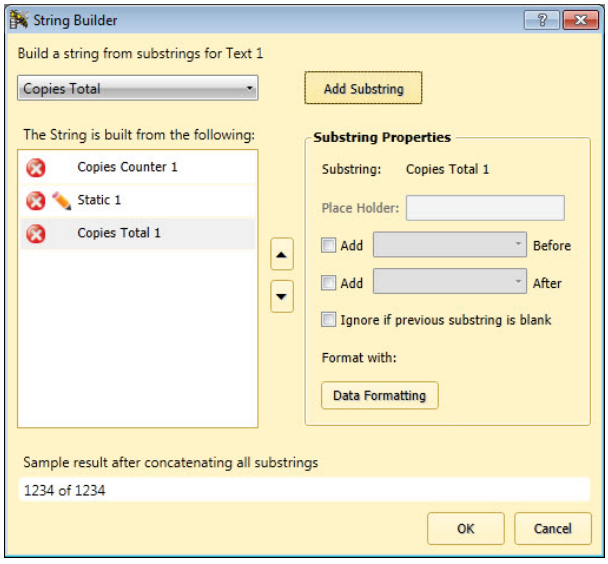
6. Highlight the sample text and type "of" (without quotation marks), then click **OK**.



7. With your **Static** substring highlighted in the list, select **Add > SPACE Before** and **Add > SPACE After**.



8. Finally, select **Copy Total** from the drop down list and click **Add Substring**. **Copy Total** will be added to your substring list. Your screen should look similar to the following:

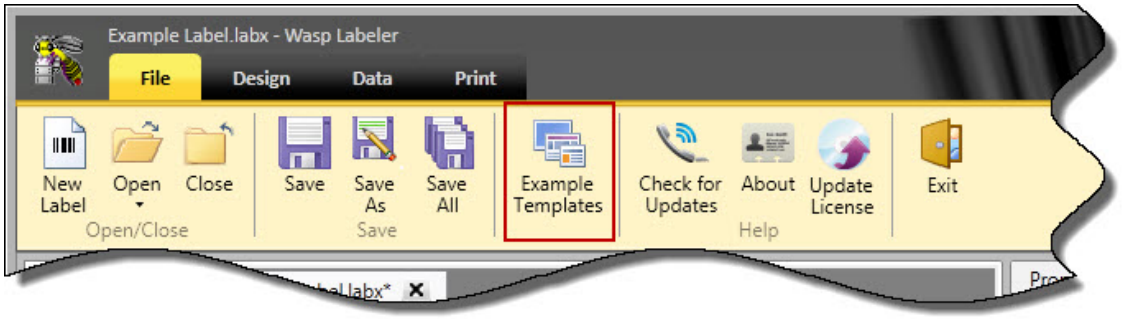


9. On the **Print** tab enter 2 in the **Number of Copies > Manual from User** field.

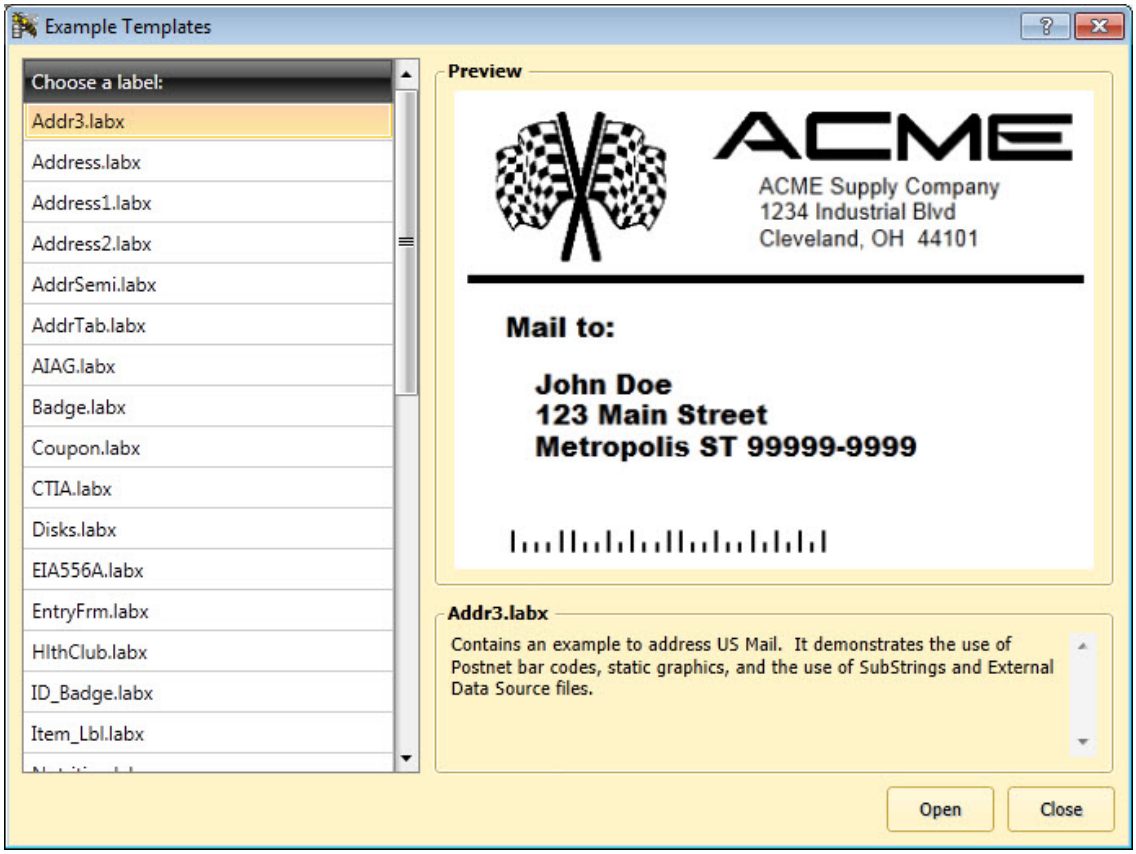
1.9 Getting Started - Example Labels

Wasp Labeler includes a set of example labels that you can access for a quick demonstration of various Labeler features. Choosing an example label is a good starting point for your label design. Review the descriptions in the list of example labels and choose one that best fits your needs.

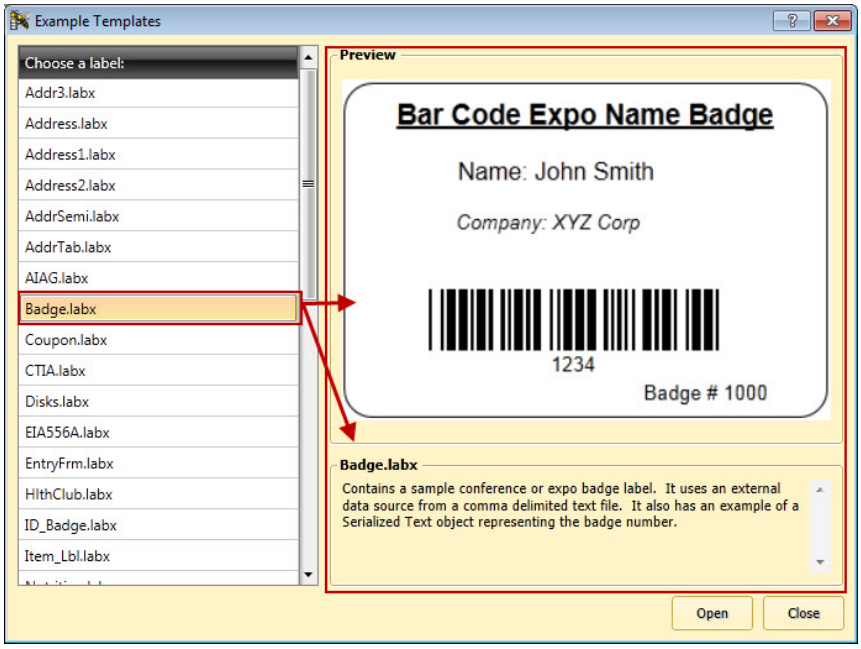
1. On the **File** tab, select the **Example Templates** icon.



The **Example Templates** screen appears.



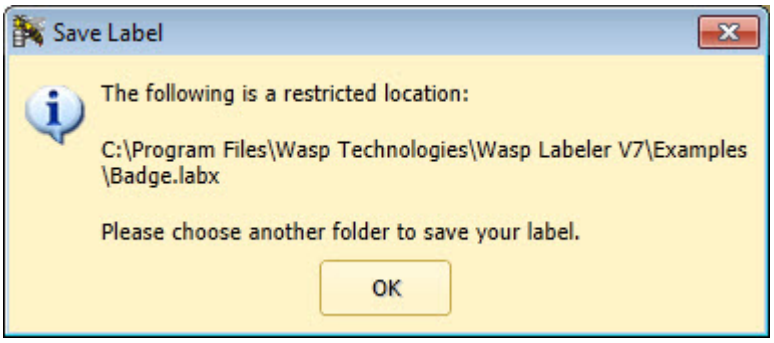
2. Scroll through the list of available label templates. Highlight a label to see a preview and description.



3. To open an example template in the design window, highlight a template and click the **Open** button. The label will open in the design window.

You can click on any of the elements on the label and see their associated properties in the **Properties** box.

You can do a "**Save As**" function to save the label under a different name and make changes to it as needed. You cannot make changes directly to the label template. If you try to save changes directly to the template file, the following screen appears:


Save Label
The following is a restricted location:
C:\Program Files\Wasp Technologies\Wasp Labeler V7\Examples\Badge.labx
Please choose another folder to save your label.
OK

Click **OK** on the warning screen to pick a new name and location for your new label.

1.10 Barcode Symbology Reference

Note: All example barcodes use the Wasp Labeler default properties unless otherwise noted.

C | D | E | G | I | M | P | Q | U

C

Codabar

Codabar is a variable length symbology capable of encoding 16 characters within any length message. Codabar can encode six special characters ("+" (plus), "-" (minus), "$" (dollar sign), "/" (slash), ":" (colon), and "." (point)) and all numeric digits. There are also 4 start/stop code choices possible when using the Codabar symbology. These characters (A, B, C, or D) must be included at the beginning or ending of a string. Codabar symbology for any new applications today should not be considered except under unusual circumstances because it is limited and out-dated.

Codabar is widely used in library systems and blood banks and for some package transport companies.

Codabar Example (No Check Digit)

Code 11

Code 11 is used primarily in telecommunications. The symbol can encode any length string consisting of the digits 0-9 and the dash character (-). One or more modulo-11 check digit(s) can be included.

Code 11 Example (No Check Digit)

Code 128

Code 128 is variable length and encodes the full 128 ASCII character set. Each character is represented by 11 modules that can be one of four bar widths. Code 128 is the most easily read code with the highest message integrity due to several separate message check routines. Of all the common linear symbologies, Code 128 is the most flexible. It supports both alpha and numeric characters easily, has the highest number of characters per inch, and is variable length.

Code 128 is widely used in the shipping industry.

The Code 128 character set includes the digits 0-9, the letters A-Z (upper and lower case), and all standard ASCII symbols and control codes. The codes are divided into three character sets: A, B, and C.

- **Character Set A** - Contains capital letters, control characters and digits.
- **Character Set B** - Contains all printable characters.
- **Character Set C** - Contains only numbers and the FNC1 character.

Code 128 Example

A special version of **Code 128 called GS1** (formerly known as **UCC/EAN 128**) is used extensively world wide in shipping and packaging industries.

Code 39

Code 39 is variable length and is the most frequently used symbology in industrial bar code systems today. The principal feature is to encode messages using the full alphanumeric character set. Three of the nine elements (bars) are wide and six elements are narrow.

Code 39 Extended (Full ASCII Code): Standard Code 39 contains only 43 characters (0-9, A-Z, $, /, %, +). Code 39 can be extended to an 128 character symbology (full ASCII) by combining one of the special characters ($, /, %, +) with a letter (A-Z) to form the characters that are not present in the standard Code 39 symbology. For example, in standard Code 39 a lowercase "a" cannot be represented. In Code 39 Full ASCII, however, "a" is represented as "+A".

Code 39 Example (No Check Digit)

Code 93

Code 93 encodes the full 128 ASCII character set using 9 modules arranged into 3 bars with adjacent spaces. Two of the characters are check characters. Code 93 is similar to Code 39 but encodes more characters per inch. Code 93 encodes the full 128 ASCII character set and is encoded similarly to Code 39 Extended.

Code 93 Example

D

Data Matrix

Data Matrix is a 2D, variable length symbology capable of encoding all 128 ASCII characters and a number of different character sets. Each Data Matrix symbol consists of a perimeter quiet zone, border with two solid edges and two dashed edges, and cells inside the border which are dark or light. The border's two solid lines with data cells are used for symbol identification, orientation, and cell location. Data Matrix can accommodate up to 500 MB per square inch with a data capacity of 1 to 2335 characters. Data Matrix has a high degree of redundancy and resists printing defects.

Data Matrix is popular for labeling small products because it can encode many characters in a small area. It is becoming the industry standard for marking small electronic equipment. It is also used in the aeronautical industry and the US Department of Defense. Data Matrix barcodes can be read by smart phones by downloading a reader.

Data Matrix Example

E

EAN/JAN

The EAN/JAN-13 is fixed length and is similar to the UPC-A symbology, but encodes a 13th digit. Also, the "12th and 13th" digits of an EAN-13, may represent a country code in its entirety or just the beginning of the country code, which may vary from 2 to 3 digits. The code 00-04 and 06-09 are assigned to the United States. The nominal height for the EAN/JAN-13 bar code is one inch. The reduced size is 80% of the nominal size.

The EAN/JAN-8 is fixed length and is similar to the UPC-E code, but includes two more digits for the country code. The nominal height for the EAN/JAN-8 bar code is one inch. The reduced size is 80% of the nominal size.

EAN/JAN 8 Example

EAN/JAN 13 Example

G
GS1 (Formerly RSS)

The GS1 family contains three linear symbologies to be used with the GS1 (formerly EAN.UCC) system. The use of this symbology is intended to comply with the GS1 application guidelines.

GS1 bar code symbols are intended for encoding identification numbers and data supplementary to the identification. The administration of the numbering system by GS1 ensures that identification codes assigned to particular items are unique worldwide and they and the associated supplementary data are defined in a consistent way. The major benefit for the users of the GS1 system is the availability of uniquely defined identification code and supplementary data formats for use in their trading transactions.

GS1-14 encodes the full 14-digit GS1 item identification in a linear symbol that can be scanned omnidirectionally by suitably programmed point-of-sale scanners.

GS1-Limited encodes a 14-digit GS1 item identification with indicator digits of zero or one in a linear symbol for use on small items that will not be scanned at the point-of-sale.

GS1-14 Stacked is a variation of GS1-14 symbology that is stacked in two rows and is used when the normal symbol would be too wide for the application. It comes in two versions – a truncated version used for small item marking applications, and a taller omnidirectional version that is designed to be read by omnidirectional scanners.

GS1 Expanded encodes GS1 item identification plus supplementary AI element strings such as weight and "best before" date in a linear symbol that can be scanned omnidirectionally by suitably programmed point-of-sale scanners. GS1 Expanded can also be printed in multiple rows as a stacked column.

GS1Stacked Omnidirectional allows the full height GS1-14 to be printed in two rows of two segments each, which reduces the overall length of the linear bar code so it can fit better on certain packaging configurations. The separator pattern between the two rows is designed to eliminate cross-row scanning errors.

GS1 Truncated

Any member of the GS1 family can be printed as a stand-alone linear symbol or as a composite symbol with an accompanying 2D Composite component printed directly above the GS1 linear component.

GS1-128 (Formerly UCC/EAN 128)

GS1-128 is a Serial Shipping Container Code with a secure bar code symbology. It allows all participants in the supply chain to use a common, standard solution for their individual tracking and tracing needs.

The GS1-128 bar code symbology requires AIs to define the data architecture. AIs are prefixes which indicate the meaning and format of the data which follows. Among the things they may be used for are item identification, measurements, quantities, traceability, dates, transaction references and location numbers.

GS1-128 Example

I

Interleaved 2 of 5

Interleaved 2 of 5 is a variable length, even-numbered, numeric bar code symbol. It is typically used in industrial and master carton labeling. The symbology uses bars to represent the first character and the interleaved (white) spaces to represent the second character. Each character has two wide elements and three narrow elements. A modulo 10 check character can be used to enhance data security for Interleaved 2 of 5 barcode symbols. When this option is selected, the last digit of the symbol is assumed to be the check digit, and it is compared to a calculated check digit to verify the symbol.

Interleaved 2 of 5 Example (No Check Digit)

ISBN

The International Standard Book Number (ISBN) is a unique machine-readable identification number used to identify books. ISBN is based on an ISO International Standard that was first published in 1972 as ISO 2108. ISO 2108 specifies the basic structure of an ISBN, the rules for its allocation, and the administration of the ISBN system.

ISBN barcodes have consisted of 13 digits since 2007. Prior to 2007 they contained 13 digits. An International Standard Book Number consists of 4 or 5 parts:

- for a 13-digit ISBN, a GS1 (Code 128) *prefix*: 978 or 979 (indicating the industry; in this case, 978 denotes book publishing)
- the *group identifier*, (language-sharing country group)
- the *publisher code*,
- the *item number*, (title of the book) and
- a check sum character or a check digit.

The ISBN separates its parts (*group*, *publisher*, *title* and *check digit*) with either a hyphen or a space. Other than the check digit, no part of the ISBN will have a fixed number of digits

ISBN Example

ITF14

The ITF-14 Traded Unit Case Code is used in the retail sector on outer cases and pallets (traded units). Based on Interleaved 2 of 5, the 14-digit code is numeric and used to display the unique traded unit number. Bearer bars must be included in horizontal form for codes printed on labels, and as a full box (with H gauges) when printed directly on corrugated surfaces.

ITF14 Example

M

MaxiCode

Predominantly used by United Parcel Service to sort mail at high speed, MaxiCode is well suited to being read quickly and often in any direction. MaxiCode is a fixed-size 2D matrix barcode symbology having 866 hexagonal elements arranged in 33 rows around a central finder pattern. The size of a MaxiCode symbol is 1.1 inch by 1.05 inch. A single MaxiCode symbol can encode up to 93 characters of data and uses five different code sets to encode all 256 ASCII characters. MaxiCode uses three unique properties when encoding the data: Class of Service, Country Code, and Mode.

Maxicode Example (Postal Code 75074, Country Code 840, Class of Service 003)

MicroPDF417

MicroPDF417 is a multi-row 2D symbology, derived from and closely based on PDF417. It is designed for applications that need improved area efficiency but without the requirement for PDF417's maximum data capacity. A limited set of symbols is available, together with a fixed level of error correction for each symbol size. Module dimensions are user-specified to enable symbol production and reading by a wide variety of techniques.

MicroPDF417 Example

Micro QR Code

Micro QR Code is a very small QR Code that fits applications that require a smaller space and use smaller amounts of data, such as ID of printed circuit boards and electronics parts, etc.

Micro QR Code Example

MSI

The MSI character set consist of the numbers 0..9 as well as two "guard" characters (representing the beginning and end of the barcode). The symbology does not support alphabetic characters.

MSI Example

P

PDF417

PDF417 is a stacked linear barcode symbol format used in a variety of applications, primarily transport, identification cards, and inventory management. PDF stands for Portable Data File. Each character consists of 4 bars and 4 spaces in a 17 module structure. The name of the symbol is derived from the format of the code. PDF stands for "Portable Data File" and "417" is derived from the module structure. Each PDF417 symbol consists of 3 to 90 stacked rows surrounded by a quiet zone on all four sides. Each row consists of a leading quiet zone, start pattern, left row indicator character, one to thirty data characters, right row indicator character, stop pattern, and trailing quiet zone.

PDF417 supports text compaction, numeric compaction, and byte compaction that correlate the mapping between codeword values and decoded data. PDF417 can accommodate up to 340 characters per square inch with a maximum data capacity of 1850 text characters.

PDF 417 Example

POSTNET

POSTNET (Postal Numeric Encoding Technique) is a barcode symbology that is used by the United States Postal Service to assist in directing mail. The ZIP Code or ZIP+4 code is encoded in half- and full-height bars. Most often, the delivery point is added, usually being the last two digits of the address or PO box number.

The barcode starts and ends with a full bar (often called a guard rail or frame bar and represented as the letter "S" in one version of the USPS TrueType Font) and has a check digit after the ZIP, ZIP+4, or delivery point. The encoding table is shown on the right.

Each individual digit is represented by a set of five bars, two of which are full bars (i.e. two-out-of-five code). The full bars represent "on" bits in a pseudo-binary code in which the places represent, from left to right: 7, 4, 2, 1, 0. (Though in this scheme, zero is encoded as 11 decimal, or "binary" 11000.)

POSTNET Example

PLANET

PLANET stands for Postal AlphaNumeric Encoding Technique and is used by the United States Post Office to identify and track pieces of mail. This barcode can be 12 or 14 digits long.

PLANET Example

Q

QR Code

A QR code (abbreviated from Quick Response code) is a specific matrix barcode (or two-dimensional code) that is readable by dedicated QR barcode readers and camera telephones. The code consists of black modules arranged in a square pattern on a white background. The information encoded may be text, URL, or other data.

QR Code Example

U

UPC-A

Each UPC-A barcode consists of a scannable strip of black bars and white spaces, above a sequence of 12 numerical digits. No letters, characters, or other content of any kind may appear on a standard UPC-A barcode. The digits and bars maintain a one-to-one correspondence - in other words, there is only one way to represent each 12-digit number visually, and there is only one way to represent each visual barcode numerically.

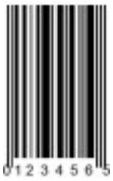
The UPC-A barcode is used on retail goods.

UPC-A Example

UPC-E

To allow the use of UPC barcodes on smaller packages where a full 12-digit barcode may not fit, a 'zero-compressed' version of UPC was developed called UPC-E. This symbology differs from UPC-A in that it only uses a 6-digit code, does not use middle guard bars, and the end bit pattern (E) becomes 010101. The way in which a 6-digit UPC-E relates to a 12-digit UPC-A is determined by the last (right-hand most) digit.

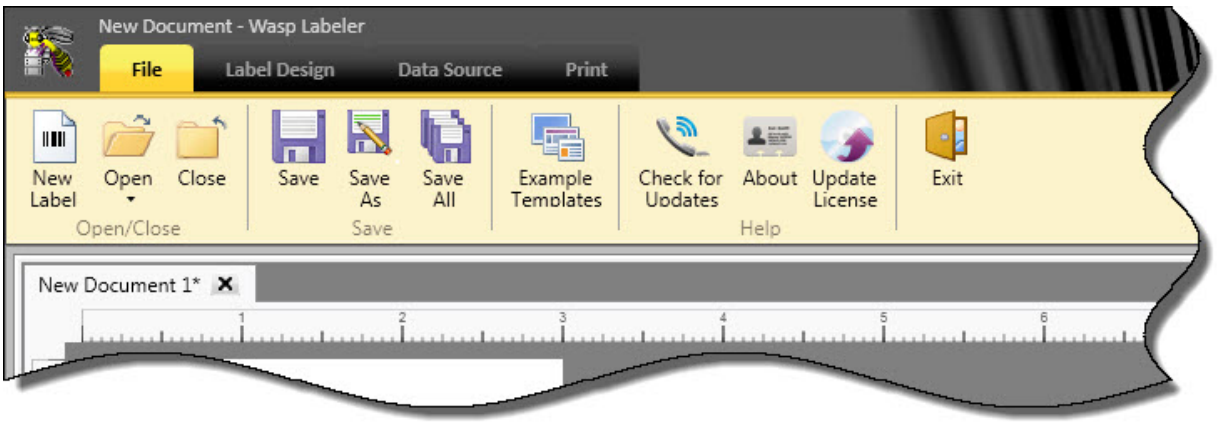
UPC-E Example



Chapter 2 - File Tab

2.1 File Tab Overview

The **File** tab contains basic functions that you would typically find on a Windows File menu. The **Open**, **Close** and **New Document** functions are found on this tab. You can access the Example Templates here or search for updates to Labeler. In addition, you can **Activate** the product from this tab and view the **About** screen.



File Toolbar Function Descriptions

- **New Label** - Click the **New Label** icon to open a new label project in the **Design** window. You can have multiple label projects open in the **Design** window at the same time.
- **Open** - Click the **Open** icon to select a saved label project to open. When you click **Open**, a drop down menu of recently opened label projects appears. Select the project you want to open from the list or click **Open Files From Folder** to navigate to your project.
- **Close** - Click the **Close** icon to close the currently active label project. If the project is unsaved, you will be prompted to save it before closing.
- **Save** - Opens an Explorer window allowing you to navigate to a folder to save and name your project.
- **Save As** - Allows you to save an already saved project under a new name. This is useful if you want to create a copy of a label that can be changed without altering the original.
- **Save All -** Saves changes to all projects currently open in the **Design** window.
- **Example Templates** - Launches the Example Templates. Please refer to the topic **Example Templates** for a complete description of available templates.
- **Check for Updates** - Opens an Internet connection to Wasp Barcode Technologies to determine if any new updates are available for your version of Labeler. If an update is found, you will be prompted to install it.

- **About** - Opens the **About** screen. The **About** screen lists the version number and serial number of your product. For a description and example of the **About** screen please refer to the topic **About Screen**.

- **Update License** - This icon only appears if you are running Wasp Labeler in Trial Mode. Click on this button to access the **Activate Labeler** screen where you can enter your activation code and register your software.

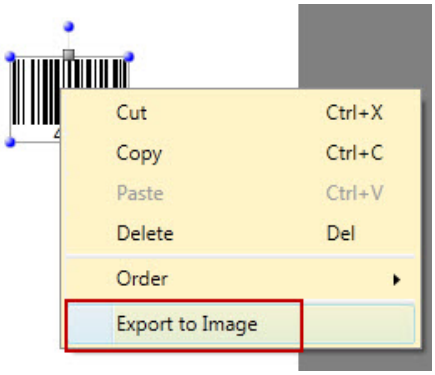
- **Exit** - Closes the Wasp Labeler application. If you have any unsaved label projects open, the **Save and Exit** screen appears. Please see the topic **Exiting Wasp Labeler with Unsaved Labels** for detailed instructions on using the **Save and Exit** screen.

2.2 Exporting a Barcode as an Image File

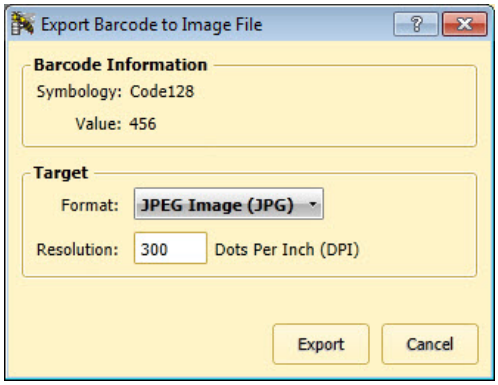
You can export any barcode you create in Labeler as an image file.

Steps to Export a Barcode as an Image File

1. Select the barcode, then right click to see the pop up menu.
2. Select **Save as image** from the pop up menu:



The **Export Barcode as Image File** screen appears.



3. The **Barcode Information** section of the **Export Barcode...**screen lists the **Symbology** and **Value** encoded into the barcode.

   Note: If the barcode is bound to a database or other external source, the placeholder value will appear in the **Value** field.

   In the **Target** section, select the **Format** to which you want to convert your barcode. Options are:

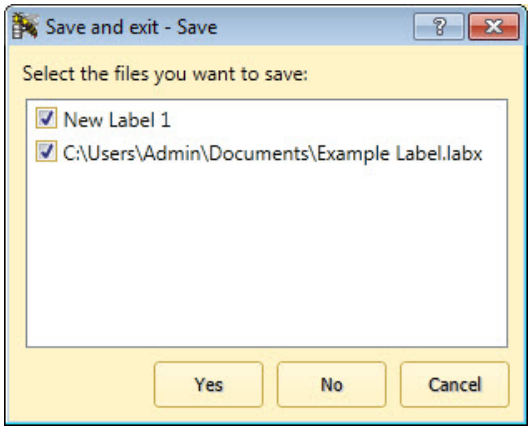
   Bitmap Image (BMP)
   GIF Image (GIF)
   JPEG Image (JPG)
   PNG Image (PNG)
   TIFF Image (TIFF)
   WMP Image (WMP)

4. Enter the **Resolution** you want for your image. Resolutions as low as 72 dpi and as high as 1800 dpi may be specified. If you intend to print the image file for subsequent decoding by bar code scanners, you should specify resolution values no lower than 200 dpi. The default of 300 dpi is ideal for printing. If you only intend to display the image on a monitor, 72 dpi is sufficient.

5. Click the **Export** button when you are ready to save the image. A browser window will appear allowing you to select a save location.

2.3 Exiting Wasp Labeler with Unsaved Labels

Click the **Close** button on the **File** tab to close the Wasp Labeler application. If you have any unsaved label projects open, the **Save and Exit** screen (shown below) appears.



Select the labels you want to save, then click **Yes**. A standard Windows browser screen appears allowing you to choose a location and name for your label. If you have selected to save multiple labels, a browser window will appear for each label.

Select **No** to close without saving or **Cancel** to cancel the exit process and return to Labeler.

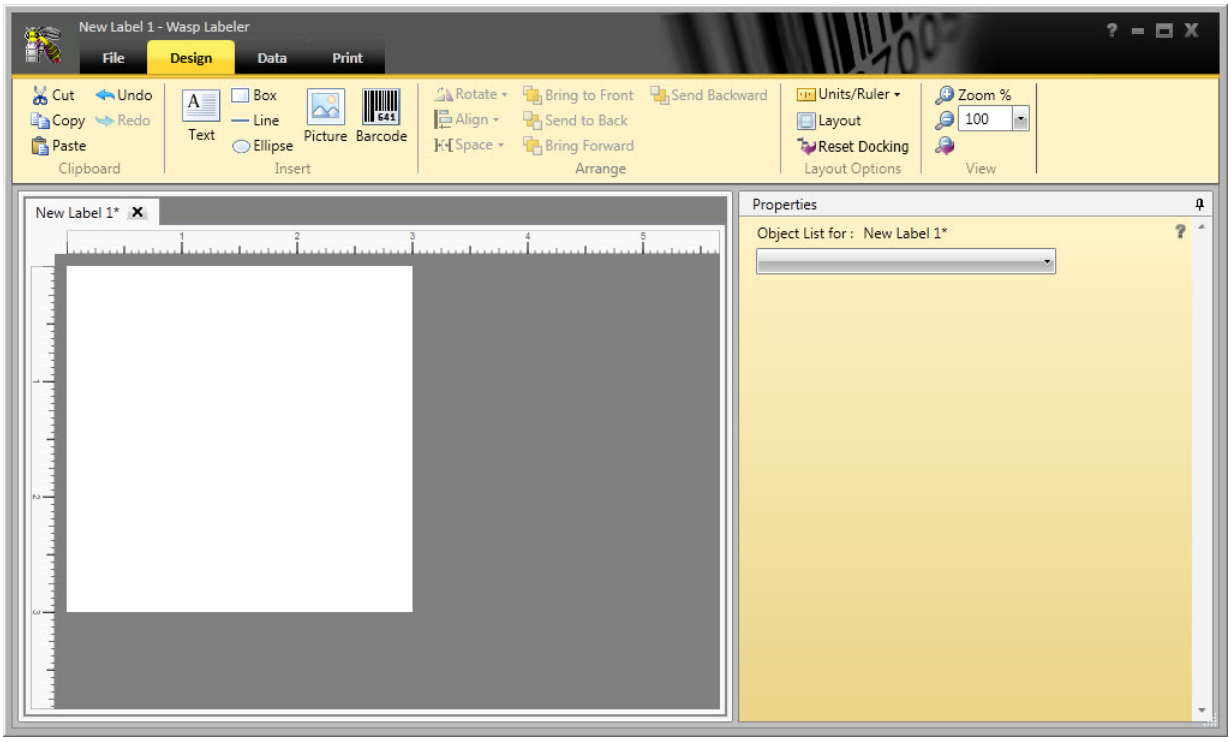
Chapter 3 - Design Tab

In this topic:

[Design Toolbar Function Descriptions](#)
- [Clipboard](#)
- [Insert](#)
- [Arrange](#)
- [Layout Options](#)
- [View](#)

The **Design** tab contains all of the options for customizing your label. This tab allows you to place items such as barcodes, text boxes, graphics and drawing objects onto your label.

This topic provides details on the functions contained on the **Design** tab. For an example of creating a label using the **Design** tab, please refer to the topic [Getting Started - Creating a Static Label](#).



3.1 Design Toolbar Function Descriptions

The toolbar on this tab is divided into 5 sections:

1. Clipboard
2. Insert
3. Arrange
4. Layout Options
5. View

Clipboard - This section contains basic commands:

- Cut - Removes the selected object from the canvas and saves it to the clipboard.
- **Copy** - Copies the selected object from the canvas and saves it to the clipboard.
- **Paste** - Places an object saved to the clipboard onto a new location.
- **Undo** - Click this icon to undo the most recent action.
- **Redo** - Click this icon to redo the most recent action undone (by clicking Undo).

Insert - The **Insert** options allow you to insert text, basic shapes, a picture or a barcode into your label. After you insert an object, you can add content to it from a variety of sources. The options in the **Properties** box will vary depending on the type of object you chose to insert. These icons use the **Drag and Drop** method for placement. Place your cursor on the desired object, then drag it to the **Design** window and drop it where you want it. You can place it more precisely or move it as needed.

- **Insert Text** - This icon allows you to insert a text box onto your label. You can enter static content into your text box or attach a database, string, spreadsheet, etc. to it. For complete instructions on adding a Textbox to your label, please refer to the topic **Adding a Textbox**.
- **Insert Drawing Object** - The Box, Line and Ellipse icons allow you to add basic shapes to your label. You can add a rectangle, ellipse or line. For complete instructions on adding a shape to your label, please refer to the topic **Adding a Drawing Object**.
- **Insert Picture** - This icon allows you to insert a graphic onto your label. The supported graphic formats are:
    - Bitmap Files (*.BMP)
    - JPEG (*.JPG, *.JPEG, *.JPE, *.JFIF)
    - PNG (*.PNG)
    - TIFF (*.TIFF, *.TIF)
    - GIF (*.GIF)
    - ICON (*.ICO)

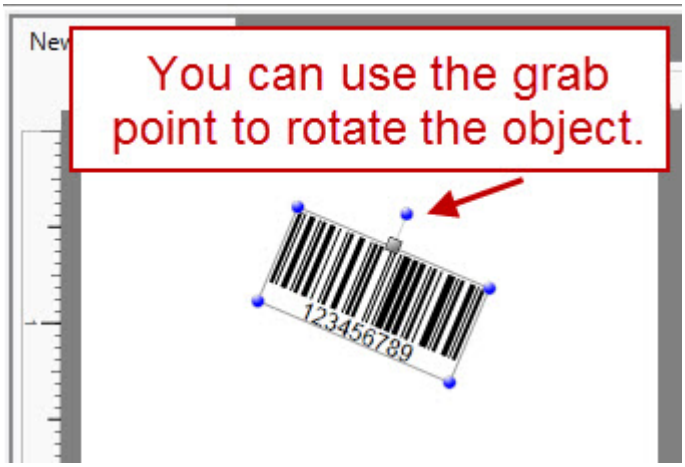
For complete instructions on adding a picture, please refer to the topic **Adding a Picture**.

- **Insert Barcode** - This icon allows you to insert a barcode onto your label. After placing the barcode, you can choose the symbology and data source using the options in the **Properties** box. For complete instructions on adding a barcode to your label, please refer to the topic

Adding a Barcode.

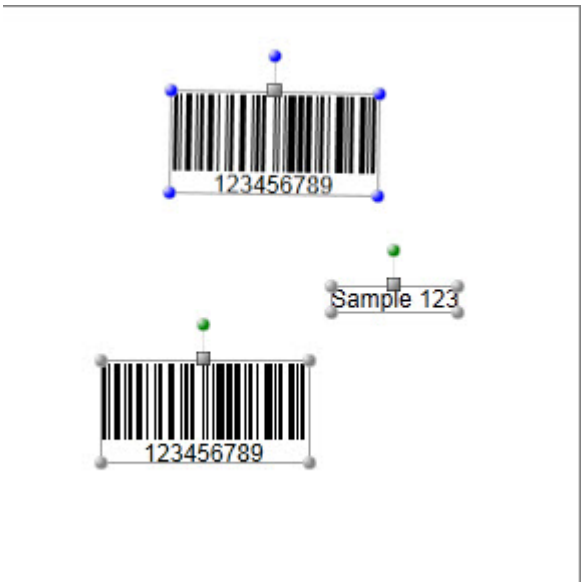
Arrange - The Arrange menu allows for precision placement of objects or text you insert onto your label.

- **Rotate** - This option allows you to rotate a select object clockwise or counter clockwise. Note that you can also use the top grab point on a selected item to rotate it as shown below:



- **Align** - This option allows you to align a selected object or multiple selected objects. You can align **Left**, **Right**, **Top**, **Bottom**, **Vertical Center** or **Horizontal Center**. To select multiple objects, click on the objects while holding down the **CTRL** key.

  All alignments are relative to the first object you select when using **CTRL + click** to select them. If you select objects using **CTRL + A**, the first object you added to the barcode will be used for alignment. The object that is used for alignment, known as the base object, will appear selected in blue as shown in the example below.

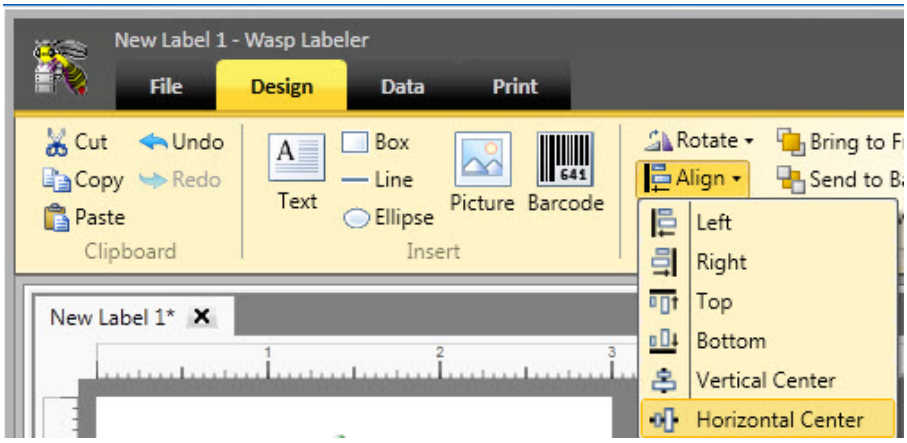


If you want to change your base object, hold down the **SHIFT** key and click on a different object. The blue outline will change to the newly selected object. The previous base object will still be selected for alignment, but will no longer be the base object.

Example - Using the Align Function

You have three barcodes on your label and you want to align two of the barcodes centered horizontally relative to the third one. Use **CTRL+ click** to select the barcodes, making sure to select the barcode to which you want the other barcodes aligned first. Your label will look similar to the following:

Now select **Align > Horizontal Center**.



The barcodes are now aligned relative to the center of the first barcode you selected.

- **Space** - This option allows you to evenly space multiple selected objects across or down.
- **Bring to Front** - Use this option to move a selected object in front of other objects.
- **Send to Back** - Use this option to move a selected object behind other objects.
- **Bring Forward** - Use this option to move a selected object forward.
- **Send Backward** - Use this option to move a selected object backward.

Layout Options - Use these options to change the layout of your label or to hide/show the ruler along the top and side of the label.

- **Units/Ruler** - Changes the ruler units. Options are **Inches**, **Centimeters** and **Millimeters**
- **Layout** - Accesses the **Page Setup** screen where you can choose the label type/size.
- **Reset Docking**- You can move and "redock" the **Properties** box to the left or center of the Labeler window (by default it is docked on the right side of the screen). To move it back to the default position, click the **Reset Docking** icon.

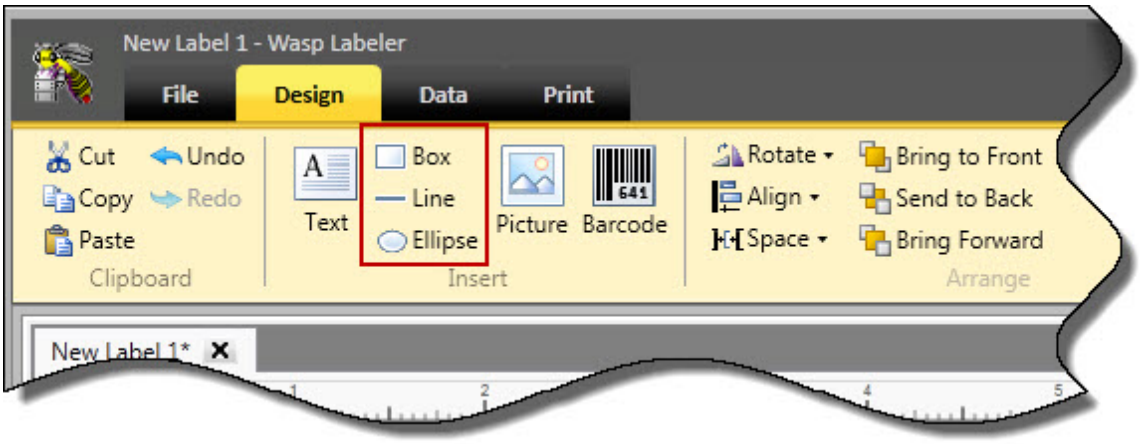
View - The **View** menu allows you to zoom in or out of the **Design** window.

- **Zoom In** - Allows you to get a close up view of your label.
- **Zoom Out** - Allows you to see more of the page at a reduced size.
- **Zoom** - Select a percentage from the drop down to zoom in on the label.
- **Reset Zoom** - Returns the view to default settings (100%).

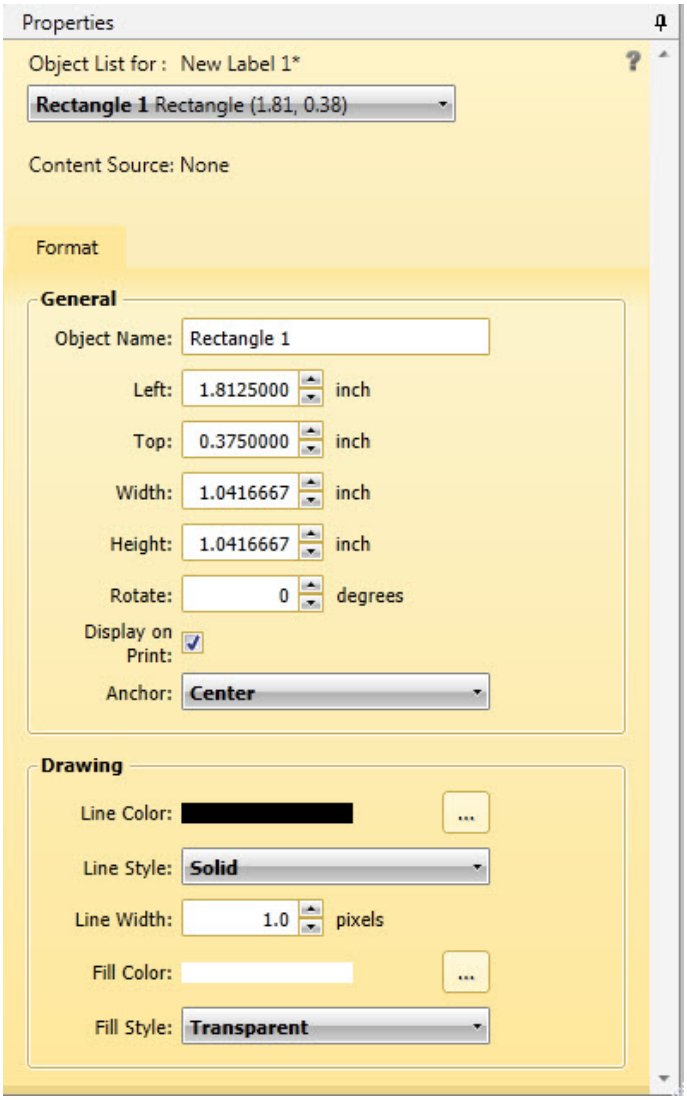
3.2 Adding a Drawing Object

You can add Boxes, Lines and Ellipses to your label using the drag and drop method. Drawing objects can be moved, resized and customized as needed.

1. On the **Label Design** tab click the **Box**, **Line** or **Ellipse** icon on the toolbar.



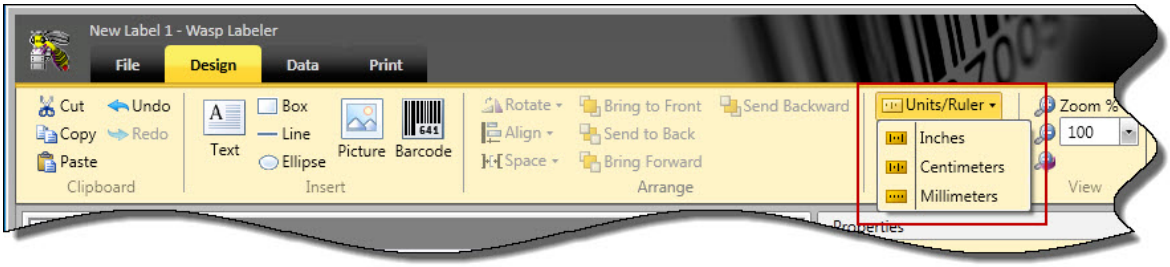
Drag and drop the object where you want the drawing object to appear on your label (you can change the location at any time). When you place the object on your label, notice that the **Properties** box displays any options for the object.



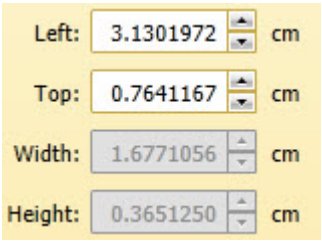
2. You can move the drawing object by clicking on it and dragging it. Resize the object by clicking on a corner of the object and dragging it. You can also enter precise size and location coordinates in the **Properties Box > Format tab**. Options are:

    - **Object Name** - You can optionally enter a new name for the object here.
    - **Left** - Enter the precise location you want your barcode relative to the left side of the label.
    - **Top** - Enter the precise location you want your barcode relative to the top of the label.
    - **Width** - Enter the width of your text box.
    - **Height** - Enter the height of your text box.
    - **Rotate** - Rotate the text box on your label.
    - **Display on Print** - Make sure this checkbox is selected if you want the text box to display when your label is printed.
    - **Anchor** - Select where you want to anchor the object on the page. For example, if you set the **Anchor** for a box to **Top**, then adjust the **Height**, the **Top** will stay in the same position and the box will "grow" from the bottom. If you anchor it **Center**, the center position will stay the same and the box will "grow" from the top and bottom.

Note: By default the unit of measurement is inches. To change this, select **Units/Ruler** on the **Design** tab toolbar and select a different unit of measure.



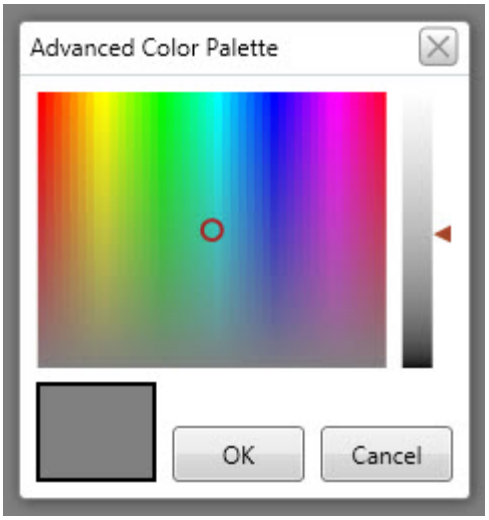
The units on the **Format** tab will update with the new unit of measure.



3. Add color and/or change the line size using the options in the **Drawing** section of the **Properties** box. Options are:

   - **Line Color** - This is the color of the outline of your drawing object (or the color of the line). This color defaults to Black. Click the ellipse button (...) to view the color selection pop up, shown below:

Click on a color to select it or click **More Colors..**.to view the **Advanced Color Palette** screen, shown below:



Click on an area of the palette and/or drag the arrow up or down on the shade bar. A sample of your color appears in the lower, left corner. Click **OK** to save your selection.

- **Line Style** - Select how you want the outline to appear (dashed, solid, dot, etc.) from the drop down menu.
- **Line Width -** Enter how thick you want the outline (in pixels).
- **Fill Color - (Ellipses and Boxes only)** The fill color is the color of the interior of the drawing object. By default the fill color is transparent. Click the ellipse button (...) to view the color selection pop up, shown above.
- **Fill Style - (Ellipses and Boxes only)** Select a style for the interior of the drawing object. By default the style is transparent.

3.3 Adding a Picture

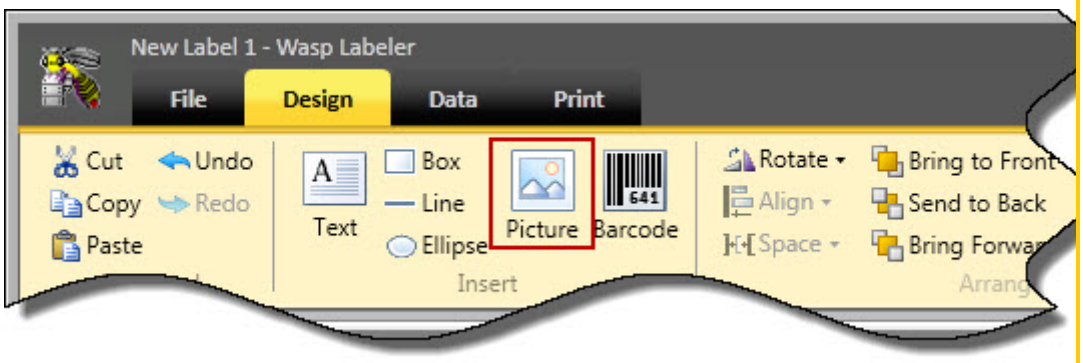
In this topic:

[Adding a Picture to a Label](#)
[Picture Properties Box: Format Tab](#)
[Picture Properties Box: Content Tab](#)

You can add pictures to your label either "statically", meaning you add a single picture that will appear on all labels, or you can link a picture placeholder to a database and have Labeler pull the pictures onto each label at print time. Labeler allows import of bitmap files (*.bmp), JPEG (*.jpg, *.jpeg, *.jpe, *jfif), PNG (*.png), TIFF (*.tiff, *.tif), GIF (*.gif), ICON (*ico).

3.3.1 Steps to Add a Picture to a Label:

1. On the **Label Design** tab click the **Picture** icon on the toolbar.

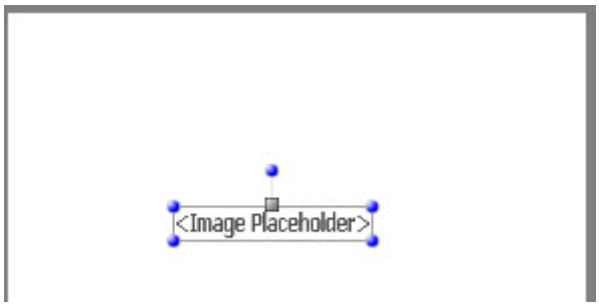


   Drag and drop the picture where you want it to appear on your label (you can change the location at any time).

2. A browser window will appear allowing you to navigate to a picture file.

   For Static Images: Browse to the desired graphic, then click **OK**. Your graphic will appear on the label. You can now use the **Format** tab or the buttons on the **Design** toolbar to edit your image.

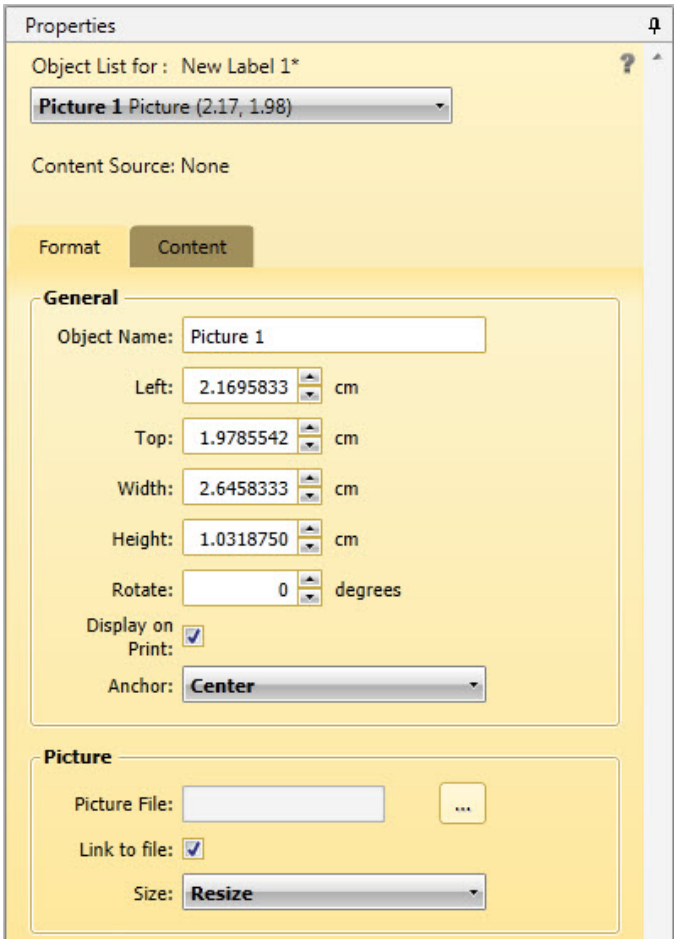
For Pictures Bound to a Database: If you do not want to import a single graphic, click **Cancel** on the browser window. This inserts a **Placeholder** representing your image as shown below:



You can now use the **Format** tab or the buttons on the **Design** toolbar to edit the placement/alignment of your image. Use the **Properties Box > Content** tab to bind the picture object to a data source.

3.3.2 Picture Properties Box: Format Tab

The **Format tab** allows you to specify an exact location for a selected barcode on your label. You can also enter precise height and width measurements on this tab. Below is an example of the **Format** tab.

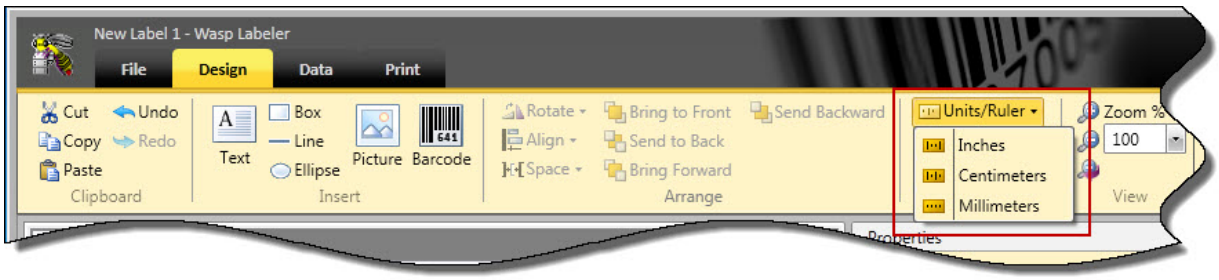


The **Format tab** is divided into two sections, **General** and **Picture**.

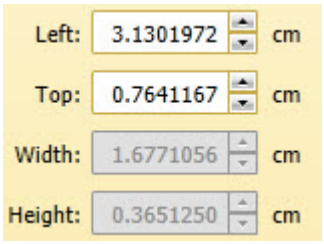
Format Tab - General Options are:

- **Left** - Enter the precise location you want your barcode relative to the left side of the label.
- **Top** - Enter the precise location you want your barcode relative to the top of the label.
- **Width** - Enter the width of your text box.
- **Height** - Enter the height of your text box.
- **Rotate** - Rotate the text box on your label.
- **Display on Print** - Make sure this checkbox is selected if you want the text box to display when your label is printed.
- **Anchor** - Select where you want to anchor the object on the page. For example, if you set the **Anchor** for the image to **Top**, then adjust the **Height**, the **Top** will stay in the same position and the picture will "grow" from the bottom. If you anchor it **Center**, the center position will stay the same and the picture will "grow" from the top and bottom.

Note: By default the unit of measurement is inches. To change this, select **Units/Ruler** on the **Design** tab toolbar and select a different unit of measure.



The units on the **Format** tab will update with the new unit of measure.



Format Tab - Picture Options are:

- **Picture File** - If you imported a graphic, the path to it will be listed here. Click the ellipse button (...) to open a browser window to choose a new graphic file.

- **Link to File** - This checkbox performs different functions depending on whether you have bound the object to an actual picture or if you are using an external data source.

  Link to a Picture: If this checkbox is **NOT** selected, Labeler will save the picture to the .LAB file. If this box is not selected, Labeler will save a link to the picture in the .LAB file. Saving a link decreases the size of the .LAB file, however, if you move either the .LAB file or the picture file to a different location, the link will be broken and the picture will not display on the label. If you select **Link to File**, make sure that any moves keep the link intact.

  Data Source: When the picture is linked to a column on the datasource, the 'Link to File' checkbox represents what type of data is in the column: a path to a picture file, or actual picture data. Select this checkbox if the linked column contains a path to picture file (ex: D:\Pictures\mypic.jpg). Do not select this checkbox if the column is an actual picture file stored in the database.

- **Size** - Select an option from the drop down:

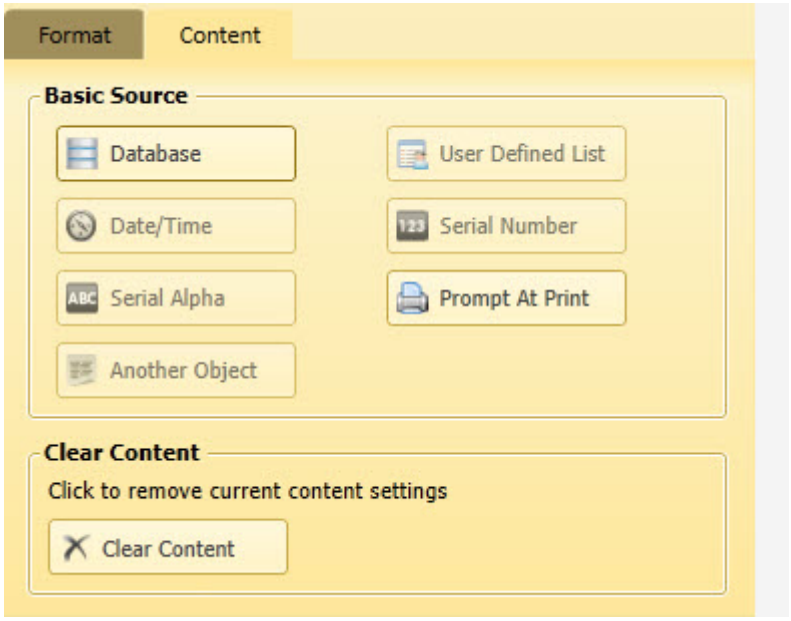
  Original - This options keeps the graphic at it's original size.

  Resize with Aspect Ratio - This option allows you to resize the image (by dragging the corners) while maintaining aspect ratio.

  Resize - This option allows you to resize the image (by dragging the corners) without regard to aspect ratio.

3.3.3 Picture Properties Box: Content Tab

The **Content** tab allows you to specify the content of your barcode (if you are not using a static picture). Below is an example of the **Content** tab.



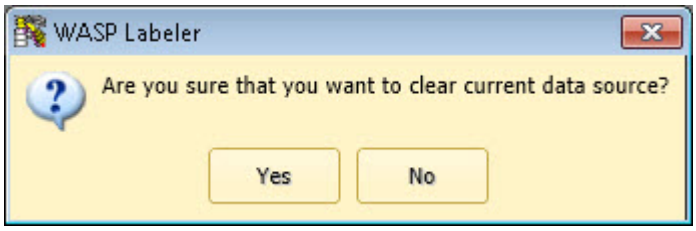
Basic Source Section

The Basic Source section lets you choose a source for the picture. Your options are:

Database
Prompt at Print

Clear Content Section

Click the **Clear Content** button to remove the currently selected data source (including a string). When this button is selected, the following question screen appears:



Click **Yes** to remove the current data source or **No** to cancel and keep the data source.

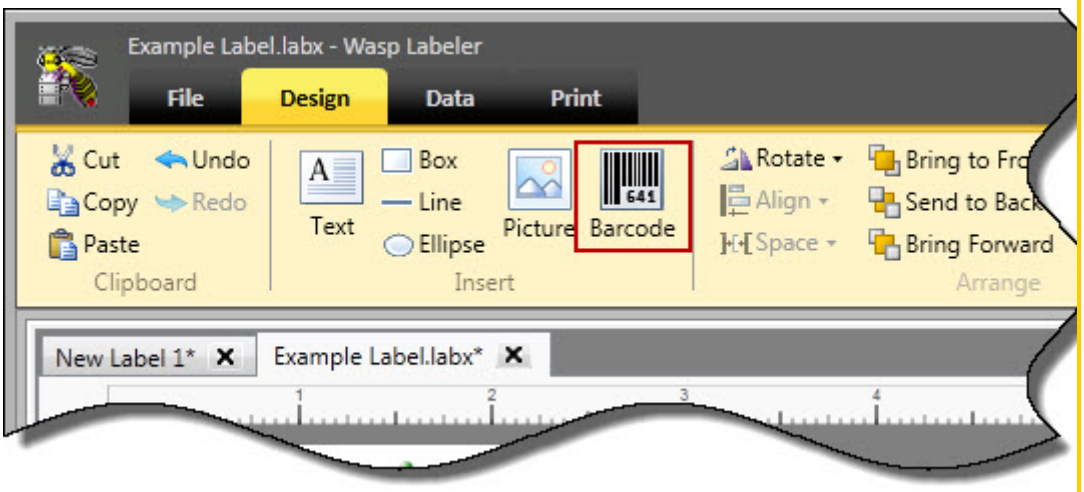
3.4 Adding a Barcode

Adding a barcode to your label is as simple as dragging and dropping it where you want it to appear. After you have placed your barcode, you can select a symbology, choose a data source (or bind it to a data source you have added via the data source screen) or add static content, add and format a caption, etc.

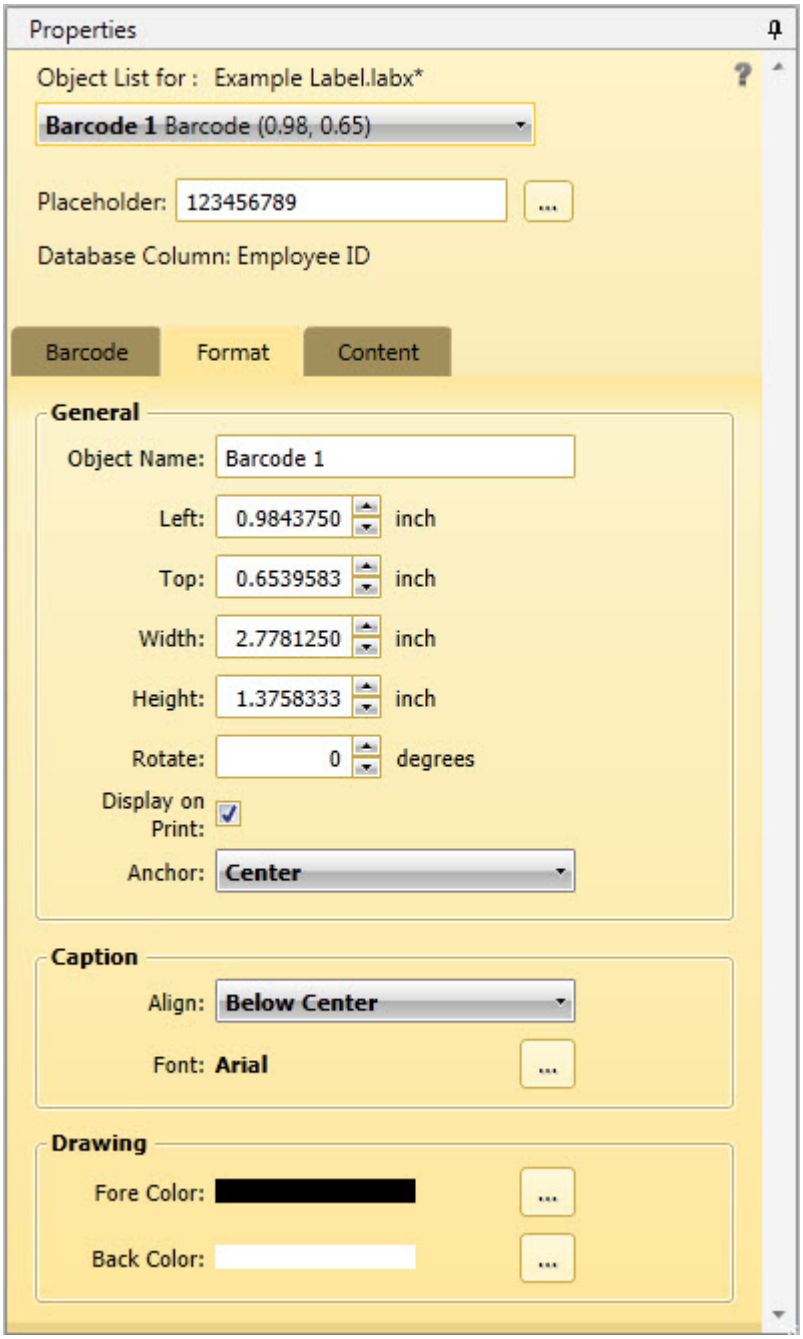
For a detailed example of adding a static barcode to your label, please refer to the topic **Getting Started - Creating a Static Label**.

3.4.1 Steps to Add a Barcode

1. On the **Label Design** tab click the **Barcode** icon on the toolbar.



Drag and drop the icon where you want the barcode to appear on your label (you can change the location at any time). You can use the buttons on the **Label Design toolbar** to rotate the barcode, move it forward or backward, etc. When you place the barcode on your label, notice that the **Properties box** displays the options for defining your barcode.



2. Define your barcode by using the **Barcode Properties box - Barcode Tab** to select the symbology and any available optional settings for the selected symbology.

3. You can move your barcode on your label by clicking on it and dragging it where you want. You can enter precise location coordinates using the **Barcode Properties box - Format Tab**.

4. Attach your barcode to an external data source or define serialization, date/time, etc using the **Barcode Properties box - Content Tab**.

3.4.2 Adding a Barcode: Properties Box

In this topic:

[Entering Static Data](#)
[Barcode Tab](#)
[Format Tab](#)
[Content Tab](#)
  [Basic Source Section](#)
  [String Builder Section](#)
  [Formatting Section](#)

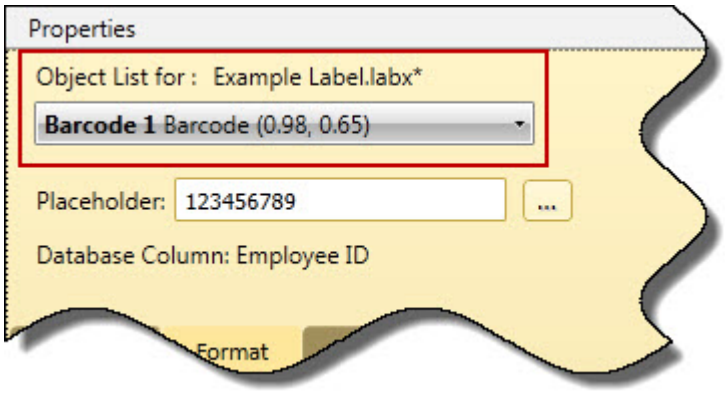
After you add a barcode to a label, the **Properties** box populates with the options available to barcodes (symbology, data source, formatting, etc.) You can use these options to define the information encoded in your barcode, the caption that appears with your barcode or for precise location placement on your label.

Contents Box - Entering Static Data:

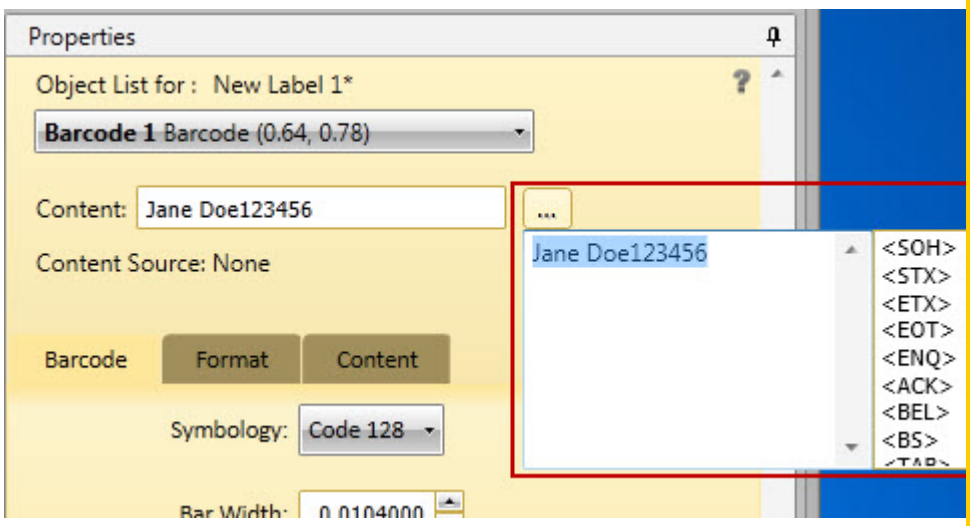
Static Data is data that does not change as your labels are printed. The content for that object will be the same on each label. For a detailed example of creating a static barcode, please refer to the topic [Getting Started - Creating a Static Label](#).

Steps to Enter Static Data

1. Make sure your barcode object is selected in the **Object List** drop down menu.



2. Enter your data directly into the **Content** text box. If you need to add special characters to your barcode, click the ellipse (...) button to the right of the **Content** field.



The **Special Characters** list appears. Special Characters are ASCII Codes. These are printable and non-printable markers that tell a printer, scanner, etc. how to handle spaces. For a complete list of ASCII Codes available, please refer to the topic **ASCII Special Character Codes**.

3. The data you entered into the **Content** box will appear in the text box on the Special Characters List as shown in the example above.

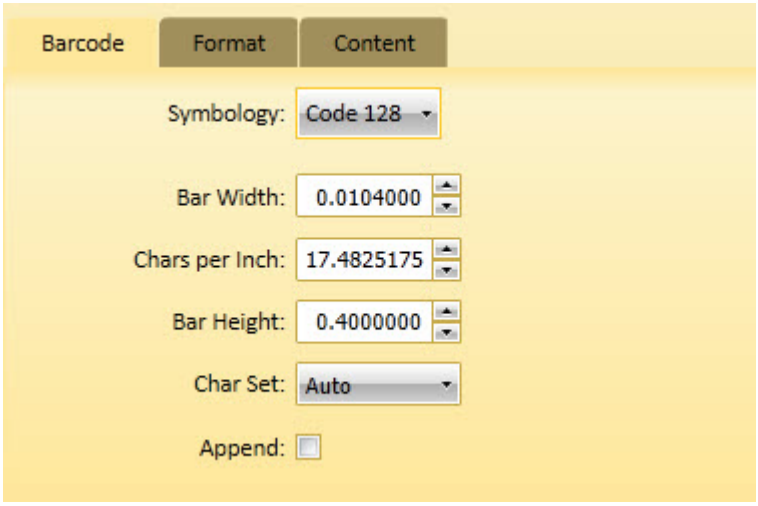
   Select any special characters you want to appear in the **Content** of your barcode. The data will change depending on the code you select. Note that codes that represent a non-printable marker, such as a space or carriage return will be represented by a symbol.

4. Click anywhere off of the **Special Character** box to close it.

   The barcode on your label will change to depict the content you entered.

Barcode Tab:

The **Barcode** tab on the **Properties** box is where you will select the **symbology** for your barcode. This tab also has fields for precision placement of your barcode. Below is an example of the **Properties Box > Barcode tab**. The options available on this tab vary depending on the symbology you have selected. The example below is with Code 128 selected, the actual screen will look slightly different depending on your selected symbology.

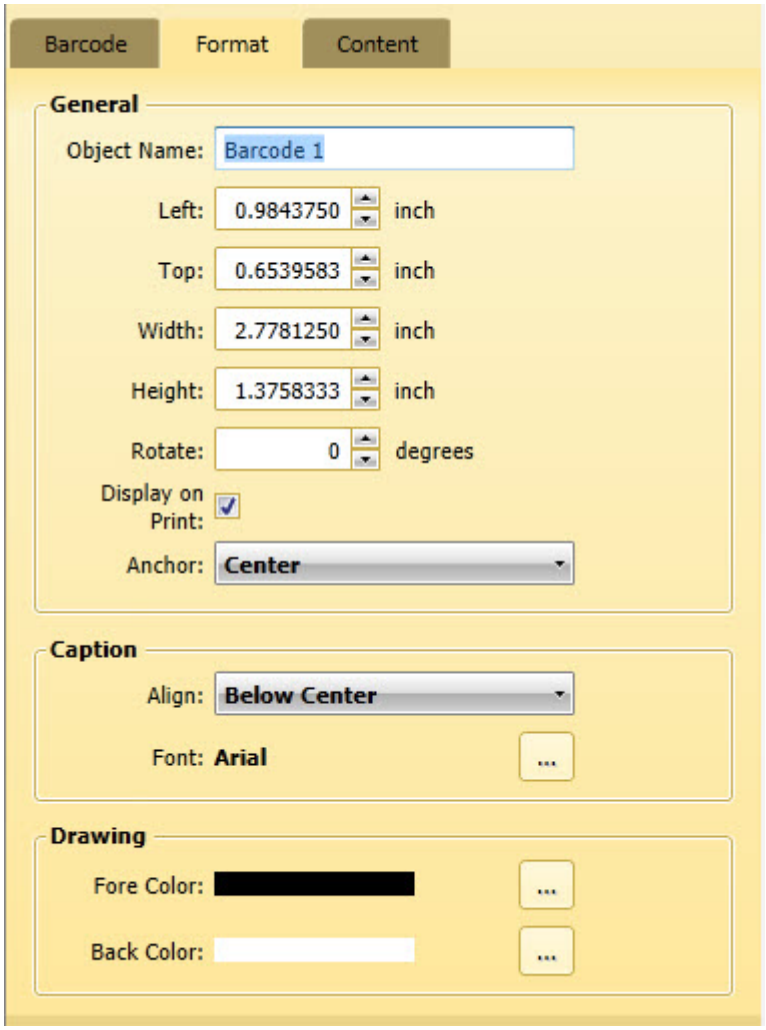


The fields available on the **Barcode** tab vary depending on the symbology selected. Click a symbology below to view a description for the related properties:

- Code 128
- Aztec Code
- Codabar
- Code 39
- Code 93
- Code 11
- Data Matrix
- EAN/JAN 8
- EAN/JAN 13
- Interleaved 2 of 5
- ISBN
- ITF 14
- Maxicode
- MicroPDF417
- MicroQRCode
- MSI
- PDF417
- PLANET
- POSTNET
- QRCode
- GS1-14
- GS1 Limited
- GS1 Stacked Omnidirectional
- GS1 Truncated
- GS1 Expanded
- GS1 128
- UPC-A
- UPC-E

Format Tab:

The **Format** tab allows you to specify an exact location for a selected barcode on your label. You can also enter precise height and width measurements on this tab. Below is an example of the **Format** tab.



The **Format** tab is divided into three sections: **General**, **Caption** and **Drawing**.

Format tab - **General** options are:

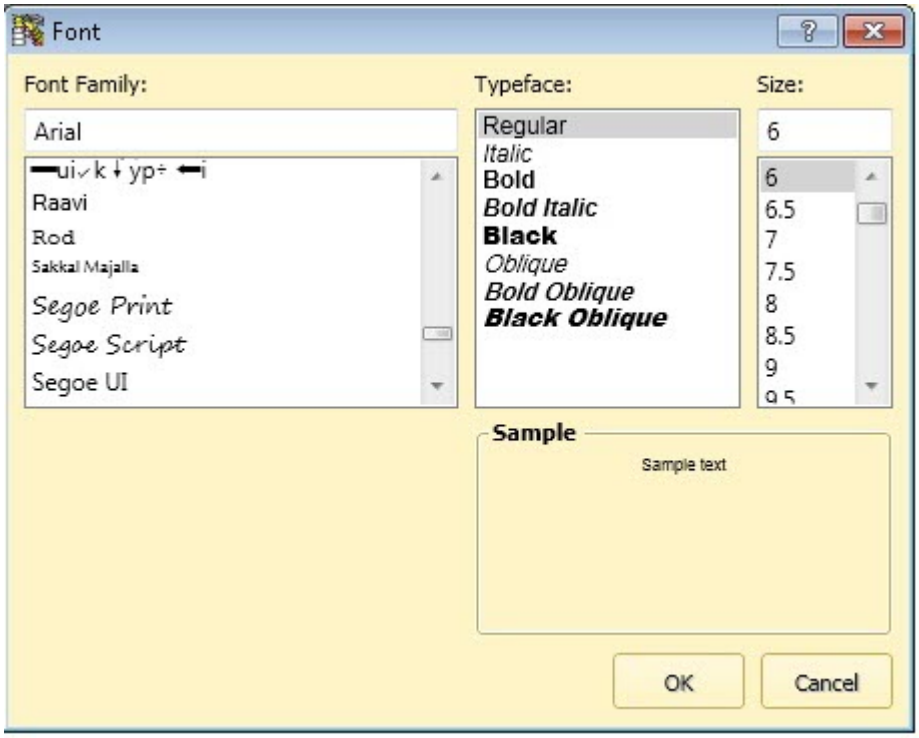
- **Object Name** - You can optionally enter a new name for the barcode object.
- **Left** - Enter the precise location you want your barcode relative to the left side of the label.
- **Top** - Enter the precise location you want your barcode relative to the top of the label.
- **Width** - Enter the width you want your barcode. This is the width of your entire barcode, including the caption, if it has one. **Keep in mind that this affects the density of your barcode which could make it harder to scan.**
- **Height** - Enter the height you want your barcode. This is the height of your entire barcode, including the caption, if it has one. **Keep in mind that a barcode that is too tall or too short could cause distortion which could make it harder to scan.**
- **Rotate** - Rotate the barcode on your label.

- **Display on Print** - Make sure this checkbox is selected if you want the barcode to display when your label is printed.
- **Anchor** - Select where you want to anchor the barcode on the page. For example, if you set the **Anchor** to **Right**, if the barcode grows or shrinks due to variable data from a data source, the **Right** side will stay in the same position and the barcode will "grow" from the left. If you anchor it **Center**, the center position will stay the same and the barcode will "grow" from the right and left.

Format tab - **Caption** options are:

- **Align** -Select an option from the drop down list to set the alignment of your caption above or below your barcode.

- **Font** - Click the ellipse button (...) to select a font for your caption. Below is an example of the **Font** screen



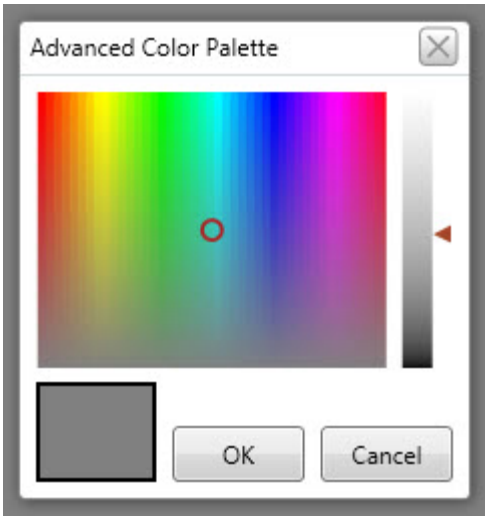
Select the desired font from the **Font Family** drop down menu. Click on the desired **Typeface** and font **Size**. A sample of your selections will appear in the **Sample** section.

Click **OK** to save your selections or **Cancel** to close the **Font** screen without saving your selection.

Format tab - **Drawing** options are:

- **Fore Color/Back Color** - The **Fore** color (the color of your barcode) defaults to black. The **Back** color (the background color) defaults to white. Click the ellipse button (...) to view the color selection pop up, shown below:

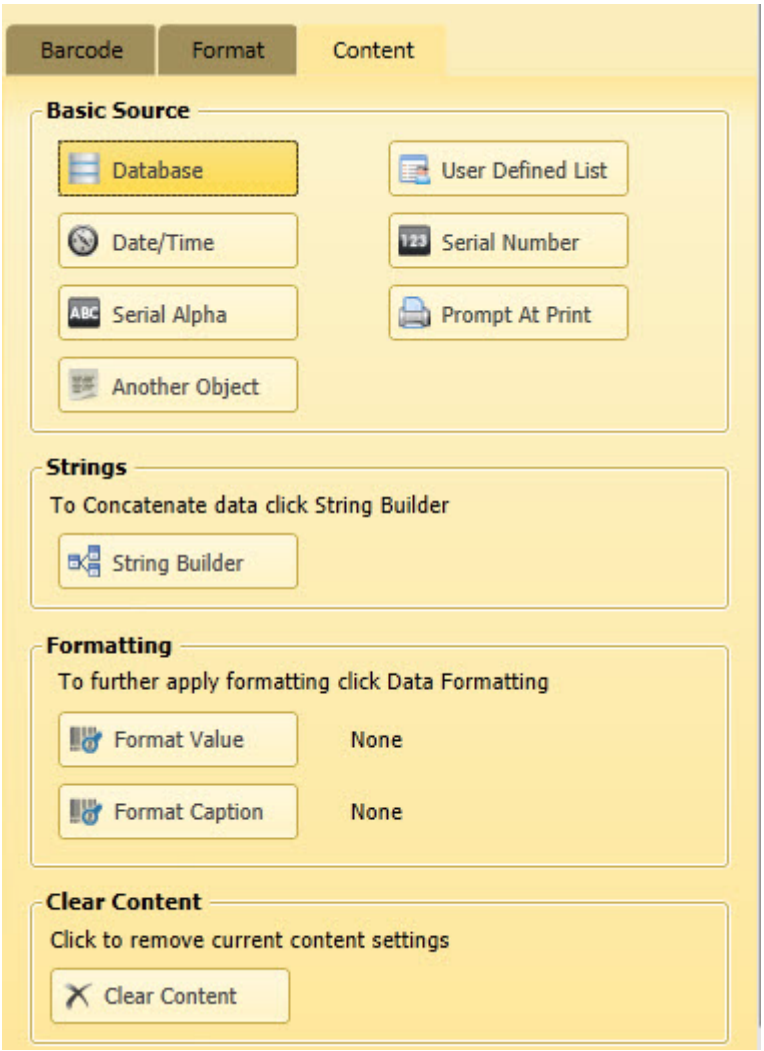
Click on a color to select it or click **More Colors..**.to view the **Advanced Color Palette** screen, shown below:



Click on an area of the palette and/or drag the arrow up or down on the shade bar. A sample of your color appears in the lower, left corner. Click **OK** to save your selection.

Content Tab:

The **Content** tab allows you to specify the content of your barcode (if you are not using **static data**). Below is an example of the **Content** tab.



This tab is divided into four sections:

- **Basic Source** - This section is where you can bind the barcode to a data source, object, serial number or alpha, date/time, etc.
- **Strings** - To add more than one data source to the barcode, use the **String Builder**.
- **Formatting** - This section allows you to build on the general formatting done to the caption on the **Format** tab and to format the value, which is the barcode content. You can create a "mask", or format expression, that will be applied to all data/captions (if using a data source, for example).
- **Clear Content** - Click the **Clear Content** button to remove the data source from the barcode.

Basic Source

This section lets you choose the data that will be encoded into your barcode. Click on a source type to bind it to your object (barcode, graphic or textbox).

Source options for barcodes are:

Database
Date/Time
Serial Alpha
Another Object
User Defined List
Serial Number
Prompt at Print

String Builder

To add more than one data source to the barcode, use the **String Builder**. Substrings concatenate, or join, different values to build what appears to be a single text or barcode object on the label from multiple data sources. This option can be for the following:

1. To customize, or build, the caption of a barcode by combining two or more data sources (static plus date/time, for example).

2. To compress two or more text or barcode values of different lengths from an external data source.

3. To compress multi-line text values to remove blank lines.

For example, if you want your barcode to have a serialized number followed by a space, you would use the String Builder to accomplish this.

Click here for a detailed example of using String Builder to concatenate two different data sources in your barcode.

Click here for detailed instructions on using the String Builder screen.

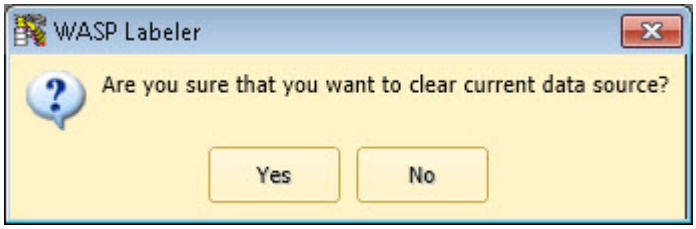
Formatting

The **Formatting** section on the **Properties box > Data Source tab** allows you to add formatting to your barcode caption or to the value encoded in your barcode. To do this you will create a Format Expression using the **Format Value** and **Format Caption** buttons in this section.

Click here for detailed instructions on formatting barcode values and captions and for a list of standard characters used to create Format Expressions.

Clear Content

Click the **Clear Content** button to remove the currently selected data source (including a string). When this button is selected, the following question screen appears:



Click **Yes** to remove the current data source or **No** to cancel and keep the data source.

3.4.3 Barcode Properties

Code 128 Properties Box Options

The table below lists the options available for Code 128 in the **Properties box > Barcode** tab.

Code 128	
Field	**Description**
Symbology	Select Code 128 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a moredense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per inch	This settings stands for character per inch. Code 128 is a dense barcode and supports a relatively high character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Char Set	There are three different character sets for Code 128 - A, B and C and Default. By leaving this set to Default, Labeler will determine the best character set to use based on the content of your barcode. Default is the recommended setting to help you avoid. • **Character Set A** - Contains capital letters, control characters and digits. • **Character Set B** - Contains all printable characters. • **Character Set C** - Contains only numbers and the FNC1 character.
Append	Use the **Append** field to add any characters you want included at the end of your barcode.

Aztec Code Properties Box Options

The table below lists the options available for Aztec Code in the **Properties box > Barcode** tab.

Aztec Code	
Field	**Description**
Symbology	Select Aztec Code from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Code Format	This setting determines the size of the barcode (along with error correction and code module size). The smallest Aztec Code symbol encodes 13 numeric or 12 alphabetic characters, while the largest Aztec Code symbol encodes 3832 numeric or 3067 alphabetic characters or 1914 bytes of data. No quiet zone is required outside the bounds of the symbol. There are 32 sizes from which to choose, plus an additional 4 compact sizes. You can leave this setting at Auto to have Labeler determine the size based on the included content.
Error Correction	This settings determines the amount of RS (Reed-Solomon) error correction for the barcode. This allows the scanner to read the barcode correctly even in the case of a partially damaged barcode. You can choose from 5% to 95% of the data in the barcode for error correction. The higher the amount of data you select for error correction, the larger your barcode will be. This makes your barcode less susceptible to damage, but could potentially make it harder to read if your barcode contains a large amount of data. The default setting is 23%. This correction amount (23%) is usually the amount of correction necessary to make your barcode data safe from damage, while also ensuring readability by most scanners.
Code Rune	You can optionally create a "rune" containing the value 0 - 255, if needed. Aztec runes are small, machine-readable symbols.
Code Module Size	A module in an Aztec barcode is a square dot and is the smallest component of the barcode. In essence, the barcode is made up of many light and dark square modules. You can adjust the module size up, which will increase the size of your barcode, or down to decrease it.

Codabar Properties Box Options

The table below lists the options available for Codabar in the **Properties box > Barcode** tab.

Codabar	
Field	**Description**
Symbology	Select Codabar from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all. It is recommended that you do not exceed 12.8 characters per inch for Codabar barcodes.
Check Digit	Select the **Check Digit** checkbox to include an optional check digit on your barcode to enhance data security. A check digit appears last on the barcode and checks for errors in the preceeding content. A modulo 16 check character is used. When this option is selected, the last digit of the symbol is assumed to be the check digit, and it is compared to a calculated check digit to verify the symbol.
Show in Caption	When this option is selected, the check digit will appear in the barcode caption.
Ratio	This is the wide to narrow bar ration. The default setting is 2 (2:1).
Start Character	Select a **Start Character** for your barcode or choose Auto to let Labeler assign one for you. A Start Character at the beginning of a barcode tells a scanner or barcode reader that the content is about to start. Your options are: A, B, C or D.
Stop Character	Select a **Stop Character** for your barcode or choose Auto to let Labeler assign one for you. A Stop Character at the end of a barcode tells a scanner or barcode reader that the content has ended. Your options are: A, B, C or D.
Show Start/Stop	Select this checkbox to display the Start and Stop characters in the caption of the barcode.

Code 39 Properties Box Options

The table below lists the options available for Code 39 in the **Properties box > Barcode** tab.

Code 39	
Field	**Description**
Symbology	Select Code 39 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Extended	Select this checkbox if you want this to be Code 39 Extended symbology. Code 39 Extended supports all ASCII characters by using double character encoding.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Check Digit	Select the **Check Digit** checkbox to include an optional check digit on your barcode to enhance data security. A check digit appears last on the barcode and checks for errors in the preceeding content. A modulo 43 check character can be used to enhance data security for Code 39 symbols. The last digit of the symbol is assumed to be the check digit, and it is compared to a calculated check digit to verify the symbol.
Show in Caption	When this option is selected, the check digit will appear in the barcode caption.
Ratio	This is the wide to narrow bar ratio. The default setting is 2 (2:1).
Show Start/Stop	Select this checkbox to display the Start and Stop characters in the captions of the barcode. In Code 39 the * character is automatically used as the Start and Stop characters. Start and Stop characters tell a reader where the barcode content begins and ends.
Stop Character	Select a **Stop Character** for your barcode or choose Auto to let Labeler assign one for you. A Stop Character at the end of a barcode tells a scanner or barcode reader that the content has ended. Your options are: A, B, C or D.

Code 93 Properties Box Options

The table below lists the options available for Code 93 in the **Properties box > Barcode** tab.

Code 93	
Field	**Description**
Symbology	Select Code 93 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.

Code 11 Properties Box Options

The table below lists the options available for Code 11 in the **Properties box > Barcode** tab.

Code 11	
Field	**Description**
Symbology	Select Code 11 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.

Data Matrix Properties Box Options

The table below lists the options available for Data Matrix in the **Properties box > Barcode** tab.

Data Matrix	
Field	**Description**
Symbology	Select Data Matrix from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.

EAN/JAN 8 Properties Box Options

The table below lists the options available for EAN/JAN 8 in the **Properties box > Barcode** tab.

EAN/JAN 8	
Field	**Description**
Symbology	Select EAN/JAN 8 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
% of Nominal	The nominal size for a EAN/JAN barcode is 1inch. The usual reduced size is 80% of the nominal size.
Specify Bar Height	Check this box to enter a specific bar height.
Bar Height	Enter the exact bar height in the field provided.

EAN/JAN 13 Properties Box Options

The table below lists the options available for EAN/JAN 13 in the **Properties box > Barcode** tab.

EAN/JAN 13	
Field	**Description**
Symbology	Select EAN/JAN 13 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
% of Nominal	The nominal size for a EAN/JAN barcode is 1inch. The usual reduced size is 80% of the nominal size.
Specify Bar Height	Check this box to enter a specific bar height.
Bar Height	Enter the exact bar height in the field provided.

Interleaved 2 of 5 Properties Box Options

The table below lists the options available for Interleaved 2 of 5 in the **Properties box > Barcode** tab.

Interleaved 2 of 5	
Field	**Description**
Symbology	Select Interleaved 2 of 5 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Check Digit	Select the **Check Digit** checkbox to include an optional check digit on your barcode to enhance data security. A check digit appears last on the barcode and checks for errors in the preceeding content. A modulo 10 check character is used. When this option is selected, the last digit of the symbol is assumed to be the check digit, and it is compared to a calculated check digit to verify the symbol.
Show in Caption	When this option is selected, the check digit will appear in the barcode caption.
Ratio	This is the wide to narrow bar ration. The default setting is 2 (2:1).
Bearer Bars	Bearer bars are lines that can be added to frame your barcode. Your options are **None**, **Top and Bottom** and **Top, Bottom and Sides**. Bearer bars were introduced to prevent barcode distortion when flexible, rubber stamps are used to print Interleaved 2 of 5 barcodes onto cardboard boxes. Adding lines all around the barcode stamp or just on the top and sides of the stamp was found to provide additional stability so the stamp did not bend as the box was being stamped.
Bearer Bar Width	Enter the width for the bearer bar(s).

ISBN Properties Box Options

The table below lists the options available for ISBN in the **Properties box > Barcode** tab.

ISBN	
Field	**Description**
Symbology	Select ISBN from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
% of Nominal	The nominal size for a EAN/JAN barcode is 1inch. The usual reduced size is 80% of the nominal size.
Specify Bar Height	Check this box to enter a specific bar height.
Bar Height	Enter the exact bar height in the field provided.

ITF 14 Properties Box Options

The table below lists the options available for ITF 14 in the **Properties box > Barcode** tab.

ITF14	
Field	**Description**
Symbology	Select ITF 14 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.

Ratio	This is the wide to narrow bar ration. The default setting is 2 (2:1).
Bearer Bars	Bearer bars are lines that can be added to frame your barcode. Your options are **None**, **Top and Bottom** and **Top, Bottom and Sides**. Bearer bars must be included in horizontal form for codes printed on labels, and as a full box (with H gauges) when printed directly on corrugated surfaces. Bearer bars were introduced to prevent barcode distortion when flexible rubber stamps are used to print barcodes onto cardboard boxes. Adding lines all around the barcode stamp or just on the top and sides of the stamp provides additional stability so the stamp did not bend as the box was being stamped.
Bearer Bar Width	Enter the width for the bearer bar.

Maxicode Properties Box Options

The table below lists the options available for Maxicode in the **Properties box > Barcode** tab.

Maxicode	
Field	**Description**
Symbology	Select Maxicode from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Mode	Select a Mode from the drop down list. Options are: 1. Mode 2 - Formatted data containing a structured Carrier Message with a numeric postal code. (Primarily used for US domestic destinations.) 2. Mode 3 - Formatted data containing a structured Carrier Message with an alphanumeric postal code. (Primarily used for international destinations.) 3. Mode 4 - Unformatted data with Standard Error Correction. 4. Mode 5 - Unformatted data with Enhanced Error Correction. 5. Mode 6 - Used for programming hardware devices. **Note:** UPS codes use Mode 2 or Mode 3.
Postal Code	Enter the postal code of the destination address.
Country Code	Enter the Country Code of the destination address. This field defaults to 840 (United States).
Class of Service	Enter the Class of Service code. These codes vary by carrier.

MicroPDF417 Properties Box Options

The table below lists the options available for MicroPDF417 in the **Properties box > Barcode** tab.

MicroPDF417	
Field	**Description**
Symbology	Select MicroPDF417 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Version	Select the barcode version. The version represents predefined combinations of numbers of columns and rows

MicroQRCode Properties Box Options

The table below lists the options available for MicroQRCode in the **Properties box > Barcode** tab.

MicroQRCode	
Field	**Description**
Symbology	Select MicroQRCode from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Code Version	Select the Code Version for your barcode. You have five options: • **Auto** - Use this option to have Labeler select the version for you based on the barcode's content. • **M1** - This version is capable of encoding: o up to 5 numeric characters with no error correction. • **M2** - This version is capable of encoding: o up to 10 numeric characters and 6 alphanumeric characters with L error correction or, o up to 8 numeric characters and 5 alphanumeric characters with M error correction. • **M3** - This version is capable of encoding: o up to 23 numeric characters and 14 alphanumeric characters with L error correction or, o 18 numeric characters and 11 alphanumeric characters with M error correction. • **M4** - This version is capable of encoding: o up to 35 numeric characters and 21 alphanumeric characters with L error correction, o up to 30 numeric characters and 18 alphanumeric characters with M error correction or, o up to 21 numeric characters and 13 alphanumeric characters with Q error correction level.
Error Correction Level	Select the Error Correction Level. Options are: • L - Approx 7% capability • M - Approx 15% capability • Q - Approx 25% capability • H - Approx 30% capability
Code Encoding	Select the type of data you want to encode. Options are: • AlphaNumeric • Auto • Byte • Numeric
Code Module Size	Select the size ofyour barcode or let Labeler determine the sized based on content or previous selections.

MSI Properties Box Options

The table below lists the options available for MSI in the **Properties box > Barcode** tab.

MSI	
Field	**Description**
Symbology	Select MSI from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Check Digit	Select the **Check Digit** checkbox to include an optional check digit on your barcode to enhance data security. A check digit appears last on the barcode and checks for errors in the preceeding content. A modulo 10 check digit calculation is always performed on the data string. A second modulo 10 check digit is optional and is used to perform a check on the entire string including the first check digit.
Show in Caption	When this option is selected, the check digit will appear in the barcode caption.
Ratio	This is the wide to narrow bar ratio. The default setting is 2 (2:1).

PDF417 Properties Box Options

The table below lists the options available for PDF417 in the **Properties box > Barcode** tab.

PDF417	
Field	**Description**
Symbology	Select PDF417 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Columns	Select the number of columns for your barcode (1-30).
Rows	Select the number of rows for your barcode (3-90).
Error Correction Level	Select the error correction level (1-8). The error correction level depends on the amount of data that needs to be encoded, the size and the amount of symbol damage that could occur.
Truncate	Select this checkbox to truncate, or remove, the right side of the PDF417 barcode. This is useful if you need a smaller barcode, but makes it more susceptible to damage.

PLANET Properties Box Options

There are no additional options for the **PLANET** barcode in the **Properties box > Barcode** tab.

POSTNET Properties Box Options

The table below lists the options available for POSTNET in the **Properties box > Barcode** tab.

POSTNET	
Field	**Description**
Symbology	Select POSTNET from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Short Bar Height	This setting determines how tall the short bars on your barcode will be. The bar height does not affect density.
Tall Bar Height	This setting determines how tall the tall bars on your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Columns	Select the number of columns for your barcode (1-30).
Ratio	This is the wide to narrow bar ratio. The default setting is (1:1).

QR Code Properties Box Options

The table below lists the options available for QR Code in the **Properties box > Barcode** tab.

QR Code	
Field	**Description**
Symbology	Select QR Code from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Code Version	Select the Code Version for your barcode. You can choose Auto to have Labeler select the version for you based on the barcode's content, or select Version V01 through V40.
Error Correction Level	Select the Error Correction Level. Options are: • L - Approx 7% capability • M - Approx 15% capability • Q - Approx 25% capability • H - Approx 30% capability
Code Encoding	Select the type of data you want to encode. Options are: • AlphaNumeric • Auto • Byte • Numeric
Code Module Size	Select the size ofyour barcode or let Labeler determine the sized based on content or previous selections.

GS1-14 Properties Box Options

The table below lists the options available for GS1-14 Code in the **Properties box > Barcode** tab.

GS1-14	
Field	**Description**
Symbology	Select GS1-14 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.

GS1 Limited

The table below lists the options available for GS1 Limited Code in the **Properties box > Barcode** tab.

GS1 Limited	
Field	**Description**
Symbology	Select GS1 Limited from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.

GS1 Stacked Omnidirectional

The table below lists the options available for GS1 Stacked Omnidirectional in the **Properties box > Barcode** tab.

GS1 Stacked Omnidirectional	
Field	**Description**
Symbology	Select GS1 Stacked Omnidirectional from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.

GS1 Truncated Properties Box Options

The table below lists the options available for GS1 Truncated in the **Properties box > Barcode** tab.

GS1 Truncated	
Field	**Description**
Symbology	Select GS1 Truncated from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.

GS1 Expanded Properties Box Options

The table below lists the options available for GS1 Expanded in the **Properties box > Barcode** tab.

GS1 Expanded	
Field	**Description**
Symbology	Select GS1 Expanded from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.

UCC/EAN 128 Properties Box Options

The table below lists the options available for UCC/EAN 128 in the **Properties box > Barcode** tab.

UCC/EAN 128	
Field	**Description**
Symbology	Select UCC/EAN 128 from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
Bar Height	This setting determines how tall your barcode will be. The bar height does not affect density.
Bar Width	This setting determines density of the barcode. Increase the bar width (applies to the individual bars in the barcode) and the density is decreased. You might want a more dense barcode to fit on a small label, for example. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.
Char per Inch	This settings stands for character per inch. You can add more characters per inch by increasing the number in this field, resulting in a more dense barcode. Notice that as you increase the number in the Char per inch field, the Bar Width field decreases. The more characters you add per inch, the more dense your barcode will be. Keep in mind that a barcode that is too dense may be harder for a scanner to read and may not be scannable at all.

UPC-A Properties Box Options

The table below lists the options available for UPC-A in the **Properties box > Barcode** tab.

UPC-A	
Field	**Description**
Symbology	Select UPC-A from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
% of Nominal	Nominal symbol height for UPC-A is 25.9 mm (1.02 in.) You can set the magnification from 80% to 200%.
Specify Bar Height	Check this box to enter a specific bar height.
Bar Height	Enter the exact bar height in the field provided.

UPC-E Properties Box Options

The table below lists the options available for UPC-E in the **Properties box > Barcode** tab.

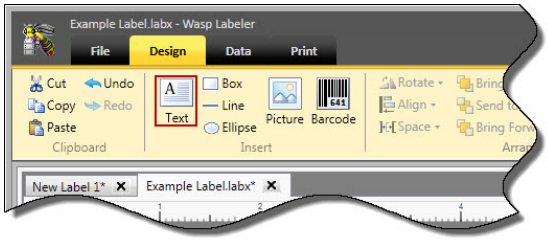
UPC-E	
Field	**Description**
Symbology	Select UPC-E from the drop down list. For a complete list of available symbologies along with examples and descriptions of each, please refer to the topic **Barcode Symbology Reference**.
% of Nominal	Nominal symbol height for UPC-E is 25.9 mm (1.02 in.) You can set the magnification from 80% to 200%.
Specify Bar Height	Check this box to enter a specific bar height.
Bar Height	Enter the exact bar height in the field provided.

3.5 Adding a Text Box

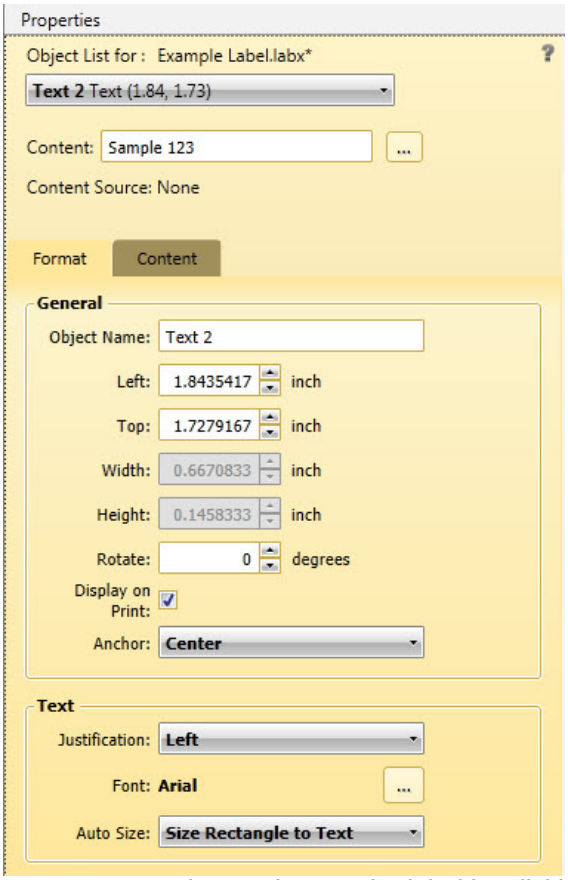
Labeler allows you to add Text Boxes to your label and place them where you need them using the drag and drop method. You can bind your text box to a variety of data sources, or enter static text (text that does not change as labels are printed).

3.5.1 Steps to Add a Text Box

1. On the **Label Design** tab click the **Text Box** icon on the toolbar.



Drag and drop the icon where you want the text box to appear on your label (you can change the location at any time). When you place the text box on your label, notice that the **Properties Box** displays the options for defining your text box.



2. You can move the text box on the label by clicking on it and dragging it where you want it. Enter precise location coordinates and size using the **Text Box Properties box - Format Tab**.

3. Attach your text box to an external data source or define serialization, date/time, etc using the **Text Box Properties box - Data Source tab**.

3.5.2 Adding a Text Box: Properties Box

After you add a barcode to a label, the Properties box populates with the options available to barcodes (symbology, data source, formatting, etc.) You can use these options to define the information encoded in your barcode, the caption that appears with your barcode and even allows for precise location placement on your label.

The topics covered in this section are:

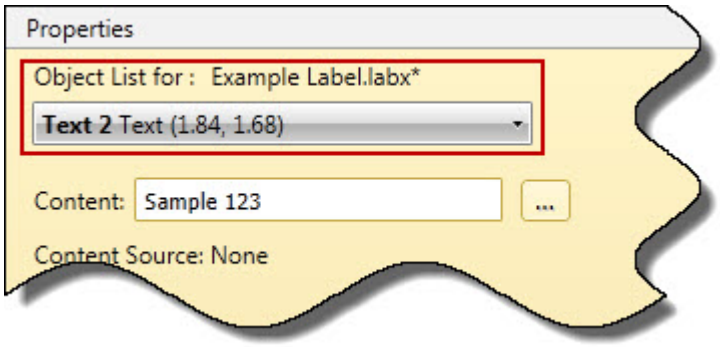
Entering Static Data
Format Tab
Content Tab
  Basic Source Section
  String Builder Section
  Formatting Section

Content Field - Entering Static Data:

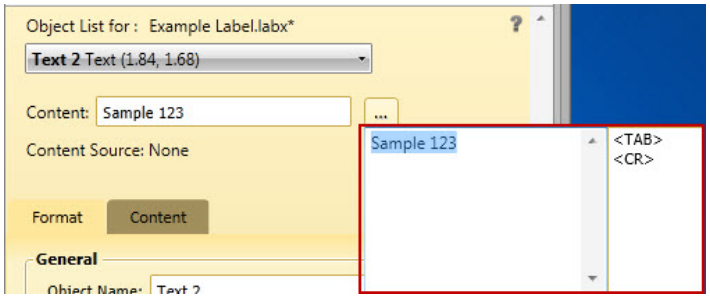
Static Data is data that does not change as your labels are printed. The content for that object will be the same on each label. For a detailed example of creating a static barcode, please refer to the topic **Getting Started - Creating a Static Label**.

Steps to Enter Static Data

1. Make sure your text box object is selected in the **Object List** drop down menu.



2. Enter your data directly into the **Content** text box. If you need to add special characters to your text box, click the ellipse (...) button to the right of the **Content** field. The **Special Characters** List appears.



Special Characters are ASCII Codes. These are printable and non-printable markers that tell a printer, scanner, etc. how to handle spaces. Note that for text boxes, the only available Special Characters are <TAB> and <CR>. These are the characters for Tab and Carriage Return.

For a complete list of ASCII Codes available, please refer to the topic ASCII Special Character Codes

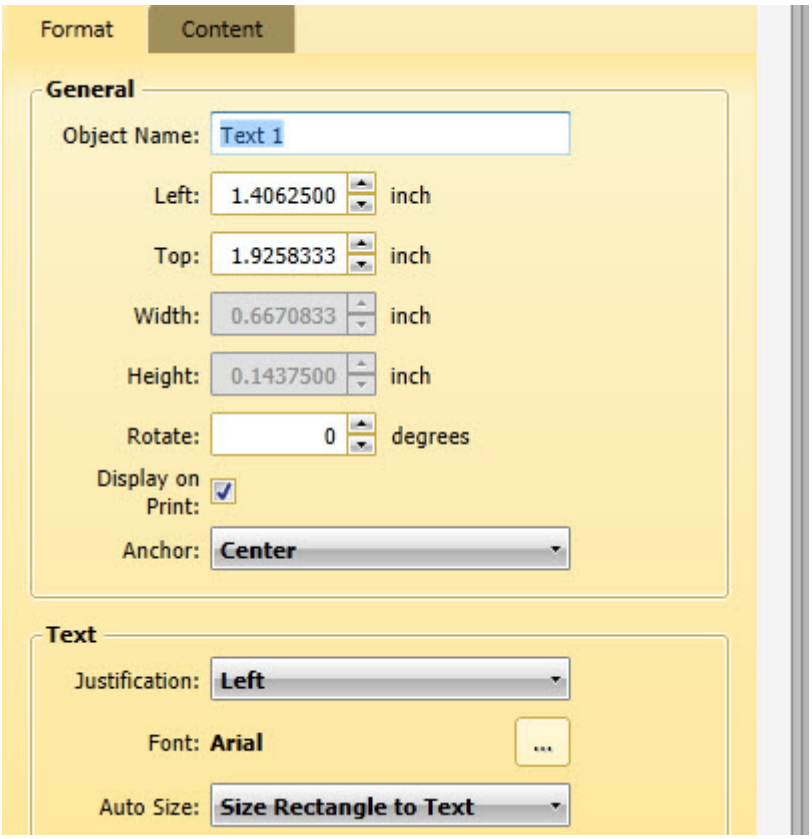
3. The data you entered into the **Content** box (of the place holder text) will appear in the text box on the **Special Characters List** as shown in the example above.

   Select the special characters you want to appear in the **Content** of your text box. The data will change depending on the code you select. Note that codes that represent a non-printable marker, such as a space or carriage return will be represented by a symbol.
4. Click anywhere off of the **Special Characters** list to close it.

   The text box will display the content you entered.

Format Tab:

The **Format tab** allows you to specify an exact location for a selected text box on your label. You can also enter precise height and width measurements on this tab. Below is an example of the **Format** tab.

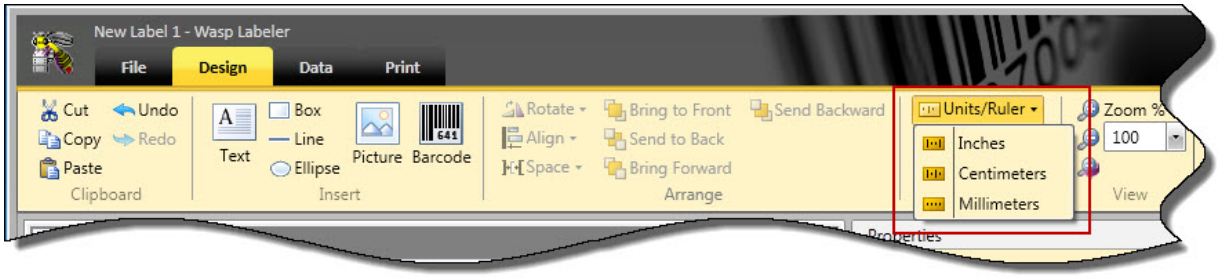


The **Format** tab is divided into two sections: **General** and **Text**..

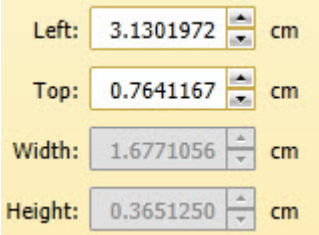
Format tab - General options are:

- **Object Name** - You can optionally enter a new name for the text box object.
- **Left** - Enter the precise location you want your barcode relative to the left side of the label.
- **Top** - Enter the precise location you want your barcode relative to the top of the label.
- **Width** - Enter the width of your text box.
- **Height** - Enter the height of your text box.
- **Rotate** - Rotate the text box on your label.
- **Display on Print** - Make sure this checkbox is selected if you want the text box to display when your label is printed.
- **Anchor** - Select where you want to anchor the text box on the page. For example, if you set the **Anchor** to **Right**, if the text box grows or shrinks due to variable data from a data source, the **Right** side will stay in the same position and the text box will "grow" from the left. If you anchor it **Center**, the center position will stay the same and the text box will "grow" from the right and left.

Note: By default the unit of measurement is inches. To change this, select **Units/Ruler** on the **Design** tab toolbar and select a different unit of measure.



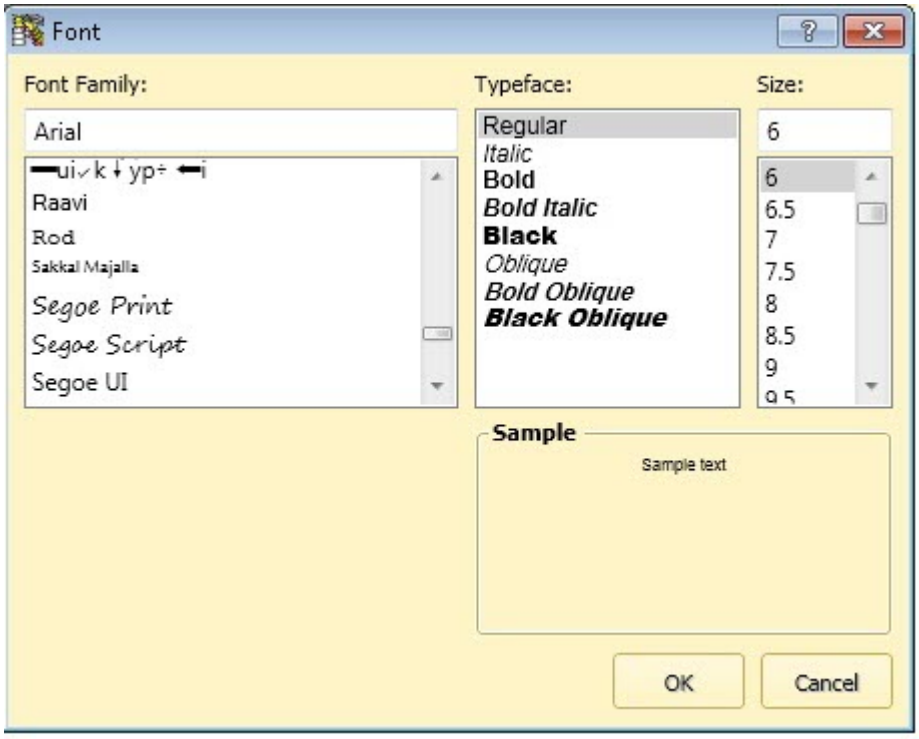
The units on the **Format** tab will update with the new unit of measure.



Format tab - Text options are:

- **Justification** - Select an option from the drop down list to set the justification of your text box. Options are **Left**, **Center** or **Right**.

- **Font** - Click the ellipse button (...) to select a font for your caption. Below is an example of the **Font** screen



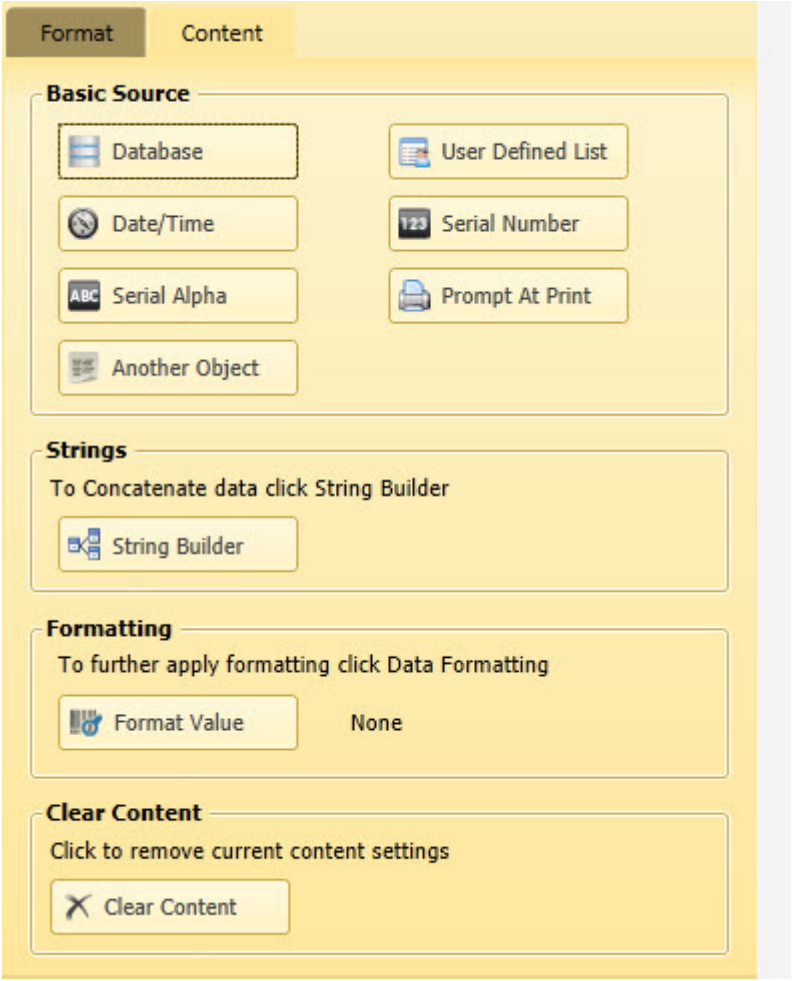
Select the desired font from the **Font Family** drop down menu. Click on the desired **Typeface** and font **Size**. A sample of your selections will appear in the **Sample** section.

Click **OK** to save your selections or **Cancel** to close the **Font** screen without saving your selection.

- **Auto Size** - Select how you want Labeler to handle text wrapping for your text box. Options are **Size Rectangle to Text** (default) or **Wrap Text to fit Rectangle**.

Content Tab:

The **Content** tab allows you to specify the content of your text box (if you are not using **static data**). Below is an example of the **Content** tab.



This tab is divided into four sections:

- **Basic Source** - This section is where you can bind the text box to a data source, object, serial number or alpha, date/time, etc.

- **String Builder** - To add more than one data source to the data source (serial number plus static content, for example), use the **String Builder**.

- **Formatting** - This section allows you to build on the general formatting done to the caption on the **Format** tab. Here you can format the value, which is the barcode content and/or format the caption by creating a "mask" that will be applied to all data/captions (if using a data source, for example).
- **Clear Content** - Click the **Clear Content** button to remove the data source from the barcode.

Basic Source

This section lets you choose the data that will be encoded into your text box. Click on a source type to bind it to your object (barcode, graphic or textbox).

Source options for text boxes are:

Database
Date/Time
Serial Alpha
Another Object
User Defined List
Serial Number
Prompt at Print

String Builder

To add more than one data source to the text box, use the **String Builder**. You can create multiple substrings on the **String Builder** screen. Substrings allow you to concatenate, or join, different values to build what appears to be a single text box or barcode object on the label from multiple data sources. This option can be for the following:

1. To customize, or build, the caption of a barcode by combining two or more data sources (static plus date/time, for example).

2. To compress two or more text or barcode values of different lengths from an external data source.

3. To compress multi-line text values to remove blank lines.

For example, if you want your text box to have a serialized number followed by a space, you would use the String Builder to accomplish this.

Click here for a detailed example of using String Builder to concatenate two different data sources in a barcode.

Click here for detailed instructions on using the String Builder screen.

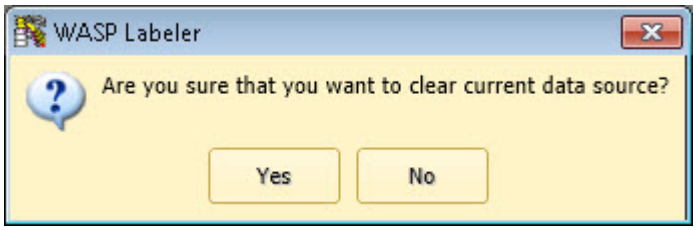
Formatting

The **Formatting** section on the **Properties box > Content tab** allows you to add formatting to your barcode caption or to the value encoded in your barcode. To do this you will create a Format Expression using the **Format Value** and **Format Caption** buttons in this section.

Click here for detailed instructions on formatting barcode values and captions and for a list of standard characters used to create Format Expressions.

Clear Content

Click the **Clear Content** button to remove the currently selected data source (including a string). When this button is selected, the following question screen appears:



Click **Yes** to remove the current data source or **No** to cancel and keep the data source.

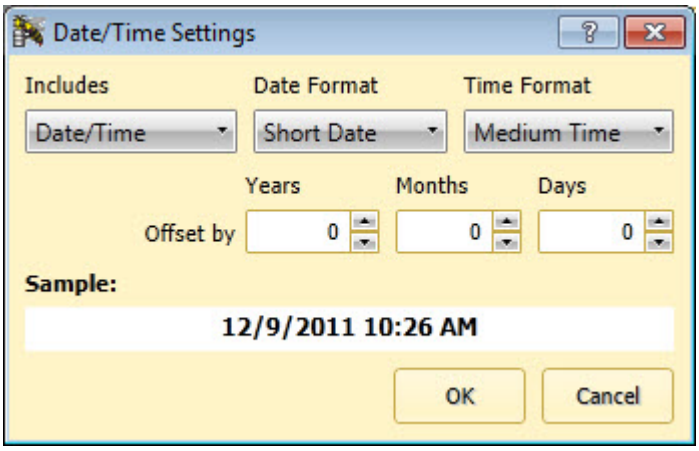
3.6 Content Options

3.6.1 Object Data Source - Date/Time

You can set your object (text box or barcode) to display the current date/time or a set date/time.

Steps to Add Date/Time to an Object

1. With the text box or barcode selected in the **Design** window, select the **Date/Time** option from the **Properties box > Data Source** tab. The following screen appears:



2. Select what information you want to appear or be encoded in the object from the **Includes** drop down list. Options are:

   Date/Time
   Time/Date
   Date
   Time

3. Select how you want the date formatted from the **Date Format** drop down list. Options are:

   Short Date - 8/31/2011 (default)
   Medium Date - 31-AUG-2011
   Long Date, Wednesday, August 31, 2011

4. Select how you want the time formatted from the **Time Format** drop down list. Options are:

   Short Time - 13:18
   Medium Time - 1:18 PM (default)
   Long Time - 1:18:36 PM

5. If you want the date to start earlier or later than today, enter in the duration in the **Offset by Years, Months, Days** fields. For example, to start the dates one year from the current date, enter 1 in the **Years** fields or click the up arrow once. To start the dates one year prior to today, enter -1 in the **Years** field or click the down arrow once.

   Notice that an example of how your date/time will look appears in the **Sample** field.

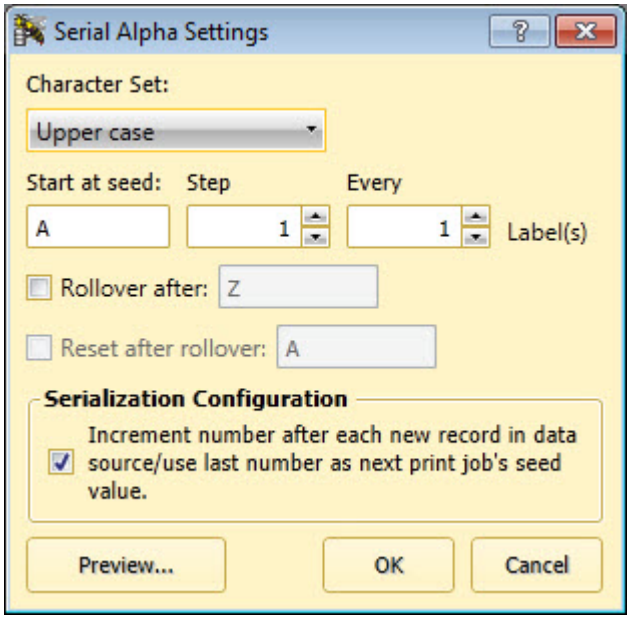
6. Click **OK** to save your data.

3.6.2 Object Data Source - Serial Alpha

The Serial Alpha setting allows you to serialize your labels alphabetically. Objects that can be serialized alphabetically are Barcodes and Textboxes.

Steps to Serialize an Object Alphabetically

1. With the object (Text or Barcode) in the **Design** window, click the **Serial Alpha** button on the **Properties box > Data Source** tab. The following screen appears:



2. Select the how you want your letters to appear from the **Character Set** drop down list. Options are:

   Upper case
   Lower case
   Upper then lower case
   Lower then upper case

3. Enter the beginning character in the **Start at seed:** field, then enter how many characters you want to increase per a set number of labels in the **Step** and **Every** fields. For example, the default settings (shown in the screen shot above) sets the serialization to start at letter A and increase one letter (step) every one label. So each label will go up one level. Changing the **Every** field to 2 means that the alpha serialization will increase one letter (step) every 2 labels.

4. By default the serialization continues past Z to AA, BB, etc.. If you want to change this, select the **Rollover after** checkbox and enter a value. After the entered value is reached (the default is Z), the serialization will start over with the seed value.

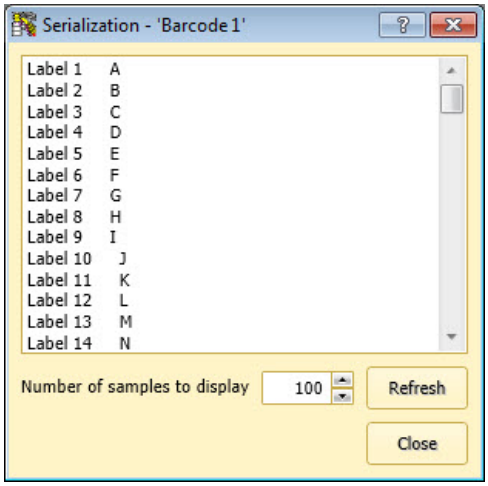
5. If you set the labels to rollover after a set value and do not want them to reset to the seed value, select the **Reset after rollover** checkbox. Enter the value you want to restart at in the field provided.

6. In the **Serialization Configuration** section, check the checkbox if you want to do one of the following:

   - increment the sequence with each new record in an external data source, or

   - resume the serialization where it left off at the next printing.

7. Click the **Preview** button to view how your serialization will look. Below is an example of the **Serialization Preview** screen:



8. By default 100 samples are displayed. You can adjust this number up or down using the **Number of samples to display** field arrows or enter a sample number. Click the **Refresh** button to update the samples with any changes you have made or **Close** to close the **Serialization Preview** screen.

9. Click **OK** on the **Serial Alpha** screen to save your changes.

3.6.3 Object Data Source - Database

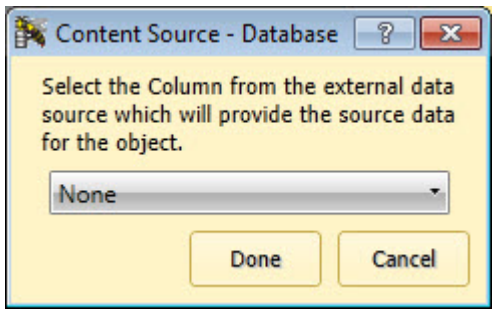
You can attach, or bind, your barcode, graphic or text box to a database to obtain data. For example, if you are creating conference badges, you may have attendee names in one database. You can create your label, then attach various objects to different columns in the database from which they can pull data. You might have a text box pull data from the company column and a barcode with a caption pull data from an employee name column. Then when you print the badges, the appropriate data will appear in the text box and encoded on the barcode.

There are three ways you can attach a database.

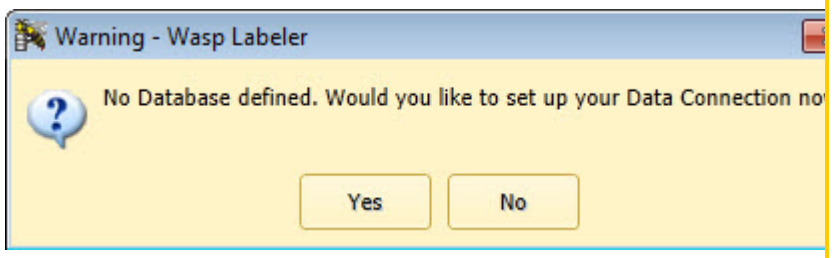
1. You can **select it from the Data tab**, allowing you to select which columns you want to make available to your label project and to sort/filter data.
2. You choose a database on the **Properties Box > Data tab** for a selected object.
3. You can select it when you create substrings on the **String Builder** screen.

Steps to Select a Database Column as the Data Source

1. Select an object (barcode, picture or text box) in the **Design** window, then click on the **Properties Box > Content** tab and select **Database**, or select **Database Column** from the drop down list on the **String Builder** screen and click **Add Substring**. The following screen appears.


Content Source - Database
Select the Column from the external data source which will provide the source data for the object.
None
Done
Cancel

Note: If you have not already selected a **Data Source** on the main **Data Source** tab, the following message will appear:



Click **Yes** to go to the **Data tab and select a Data Source**.

2. The **Content Source - Database** screen allows you to "map" a column in your data source to the selected object. For example, if you are creating a name badge, you might "map" the column containing employee names to a text box.

   Keep in mind that you can use this screen to map one column to your object. If you want to add data from more than one column to an object, use the String Builder to concatenate (join) data.

3. To map a column to the selected object, select a column from the drop down menu. If you creating any filters or joins for the database on the Data tab, only the columns you selected will appear in the drop down list.

4. Click **Done** after you have made your selection.

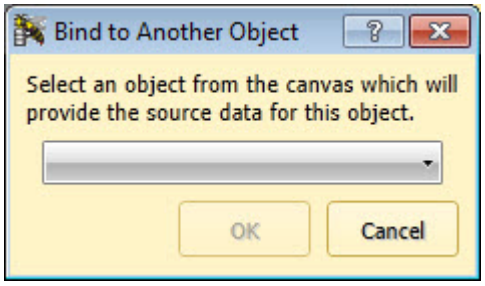
3.6.4 Object Data Source - Another Object

You can give a text box or barcode the same data source as another text box or barcode already on your label using the **Bind to Another Object** feature. If you want two or more objects to use the same data, you can go through the adding data source and column mapping functions once, then use the **Bind to Another Object** feature to quickly add the same data source and column to a new object.

Steps to Bind an Object to Another Object

1. Select an object (barcode, picture or text box) in the **Design** window, then click on the **Properties Box > Data Source** tab and select **Another Object**.

   The **Bind to Another Object** screen appears:



2. Select which object you want to bind from the drop down menu.

3. Click **OK** on the **Bind to Another Object** screen.

Note: If you change the data source on the object to which you have bound another object, the data source will change for both objects

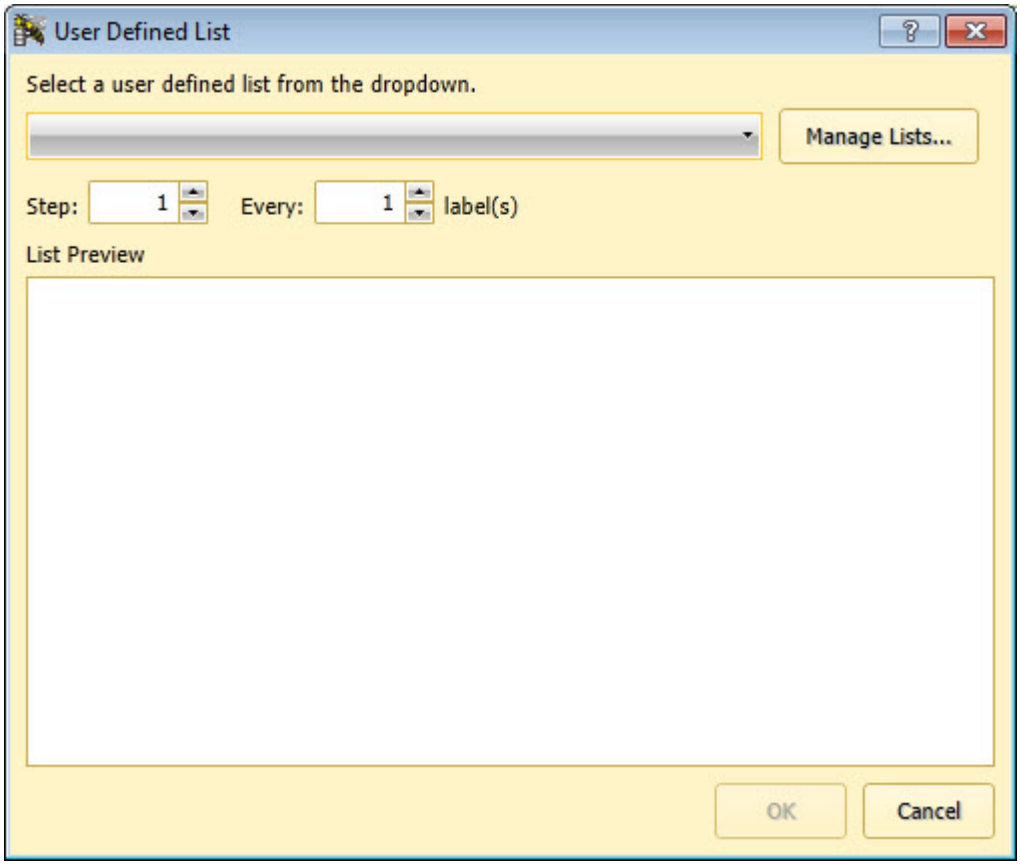
3.6.5 Object Data Source - User Defined List

Labeler contains a set of lists you can use as a data source, or you can create a custom list.

Steps to Bind an Object to a User Defined List

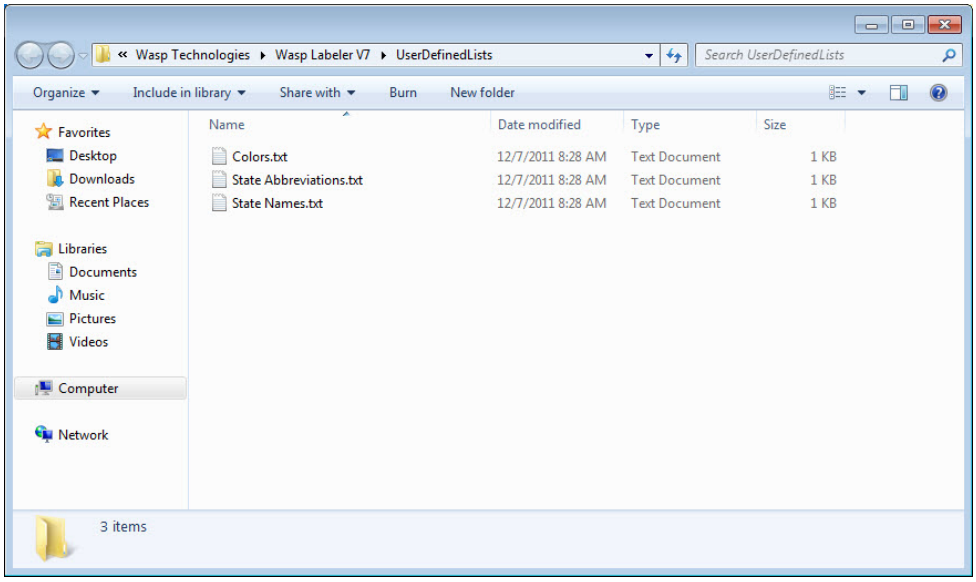
1. Select an object (barcode, picture or text box) in the **Design** window, then click on the **Properties Box > Data Source** tab and select **User Defined List**.

   The **User Defined** list screen appears;

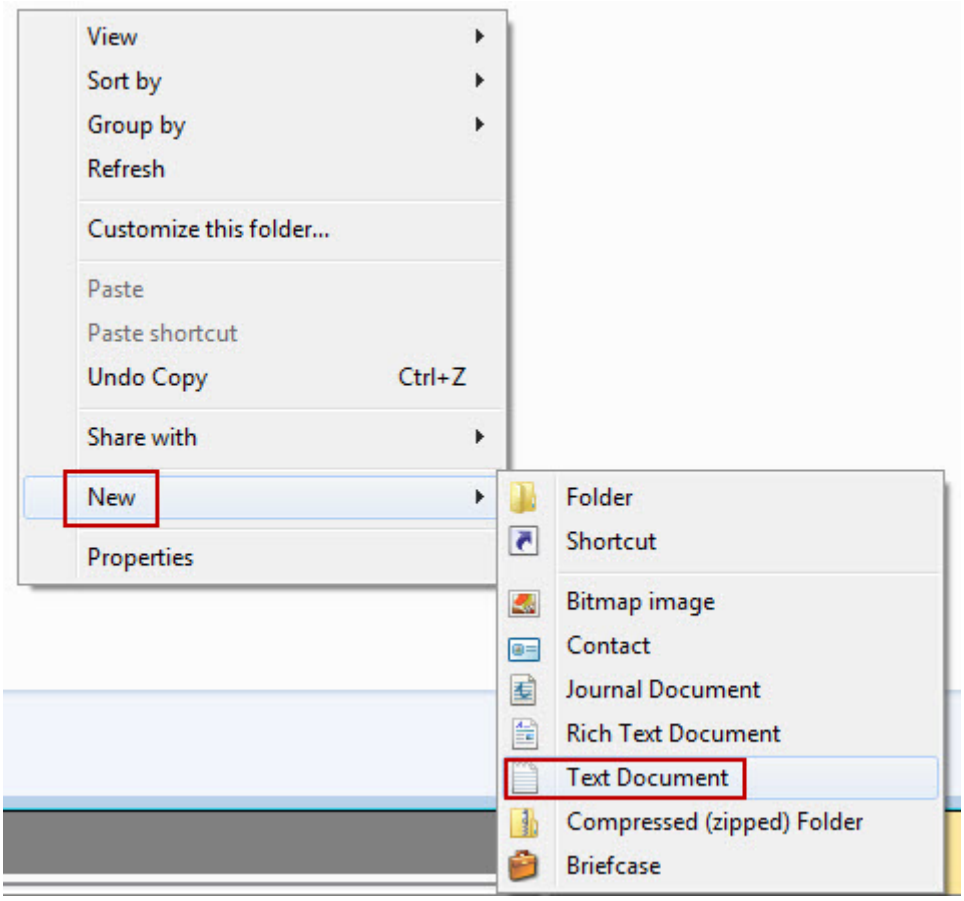


2. There are three pre-built lists contained in Labeler: Colors.txt, State Abbreviations.txt and State Names.txt. You can select one of these lists from the drop down:

or click **Manage Lists** to create a new list or select a list you have already created. When **Manage Lists** is selected, a **Manage Lists** browser window appears:



3. This browser window opens to the <path> folder on the machine where Labeler was installed. In this folder are the three pre-built lists. You can create a new list from scratch by right-clicking anywhere in the window and selecting **New > Text Document**.



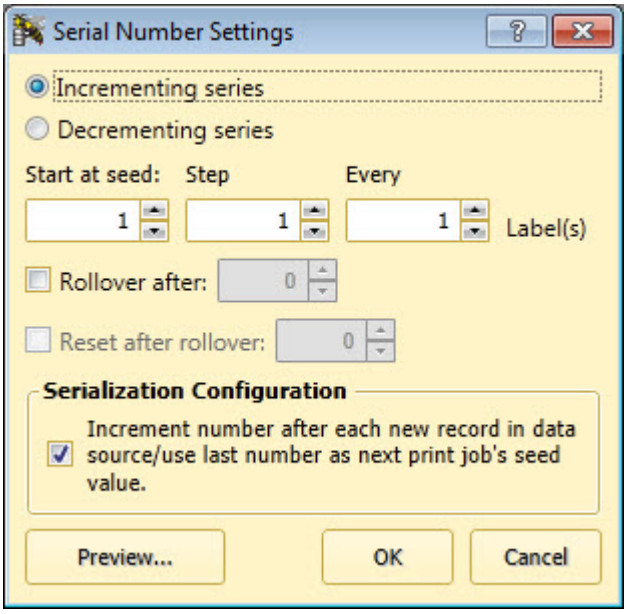
Save the file with the name of your choosing (make sure the extension stays .txt) then double-click on the file name to open and edit the document. The new list will appear in the browser window.

3.6.6 Object Data Source - Serial Number

The Serial Number setting allows you to serialize your labels numerically. Objects that can be serialized numerically are Barcodes and Text boxes.

To Create a Serial Number Object

1. With the object (Text or Barcode) in the **Design** window, click the **Serial Number** button on the **Properties box > Data Source** tab. The following screen appears:



2. Select if you want your labels serialized in **Incrementing** series or **Decrementing** series by selecting the appropriate radio button.

3. Enter the beginning number in the **Start at seed:** field, then enter how many characters you want to increase per a set number of labels in the **Step** and **Every** fields. For example, the default settings (shown in the screen shot above) sets the serialization to start at the number 1 and increase one digit (step) every one label. So each label will go up one level. Changing the **Every** field to 2 means that the number will increase one (step) every 2 labels.

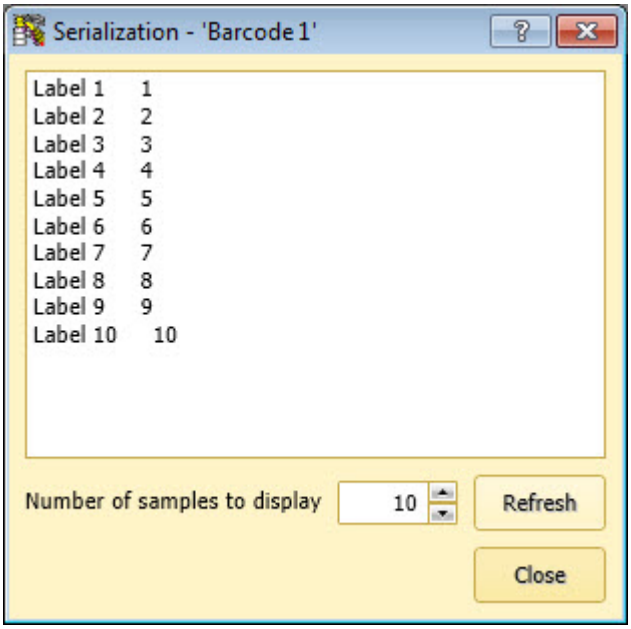
4. By default the serialization continues past Z to AA, BB, etc. If you want to change this, select the **Rollover after** checkbox and enter a value. After the entered value is reached (the default is Z), the serialization will start over with the seed value.

5. If you set the labels to rollover after a set value and do not want them to reset to the seed value, select the **Reset after rollover** checkbox. Enter the value you want to restart at in the field provided.

6. In the **Serialization Configuration** section, check the checkbox if you want to do one of the following:

   - increment the number with each new record in an external data source, or

   - resume the serialization where it left off at the next printing.
7. Click the **Preview** button to view how your serialization will look. Below is an example of the **Serialization Preview** screen:



8. By default 100 samples are displayed. You can adjust this number up or down using the **Number of samples to display** field arrows or enter a sample number. Click the **Refresh** button to update the samples with any changes you have made or **Close** to close the **Serialization Preview** screen.

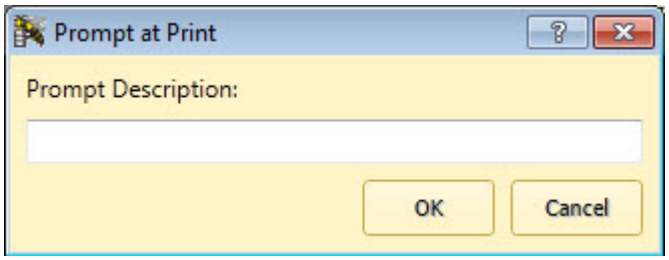
9. Click **OK** on the **Serial Number** screen to save your changes.

3.6.7 Object Data Source - Prompt at Print

Prompt at Print is used to permit keyboard entry of information onto the label during the Print process. **Prompt at Print** should be considered when the label information is available only at the time of print. The **Prompt at Print Time** information is not stored anywhere; it is dynamically input by the user when the label is configured to print. **Prompt at Print** can be used with **Text**, **Barcode** or **Picture** objects.

Steps to Enable Prompt at Print for an Object

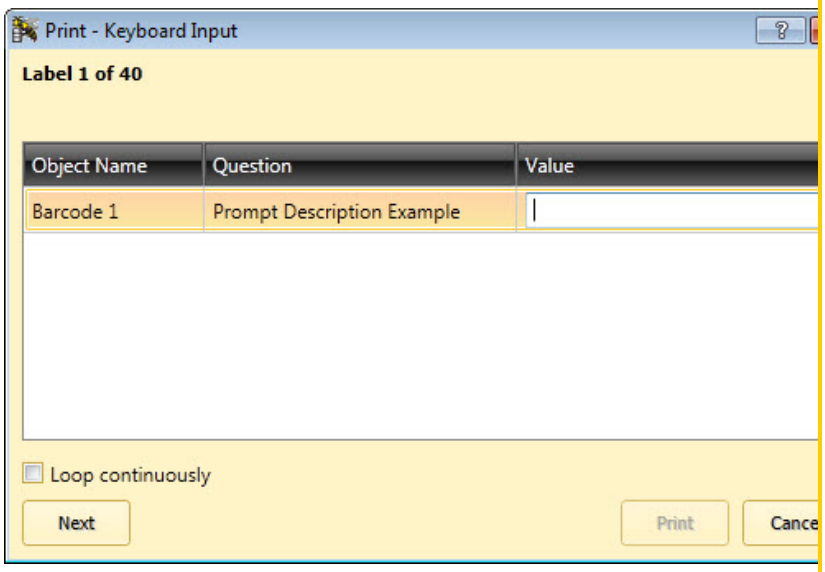
1. With the object (Text, Barcode or Picture) in the **Design** window, click the **Prompt at Print** button on the **Properties box > Data Source** tab. The following screen appears:



2. Enter a description for the prompt in the field provided. This should be descriptive enough that the user printing the labels will know what value to enter.

3. Click the **OK** button.

4. When the labels are ready to be printed, on the **Print** tab, click the **Print** button. A **Keyboard Entry** screen similar to the following:



5. Any objects that are setup for a prompt appear in the top window. Type in data in the **Value** field for each object that has a prompt.

6. Click **Next** to move on to the next label.

7. Select the **Loop continuously** checkbox to apply the data you entered in the **Value** field to that object on all labels.

8. Click the **Print** button when you have finished entering values at all the prompts.

3.6.8 String Builder

To add more than one data source to the barcode, use the String Builder. Substrings concatenate, or join, different values to build what appears to be a single text or barcode object on the label from multiple data sources. This option can be used for the following:

1. To customize, or build, the caption of a barcode by combining two or more data sources (static plus date/time, for example).

2. To compress two or more text or barcode values of different lengths from an external data source.

3. To compress multi-line text values to remove blank lines.

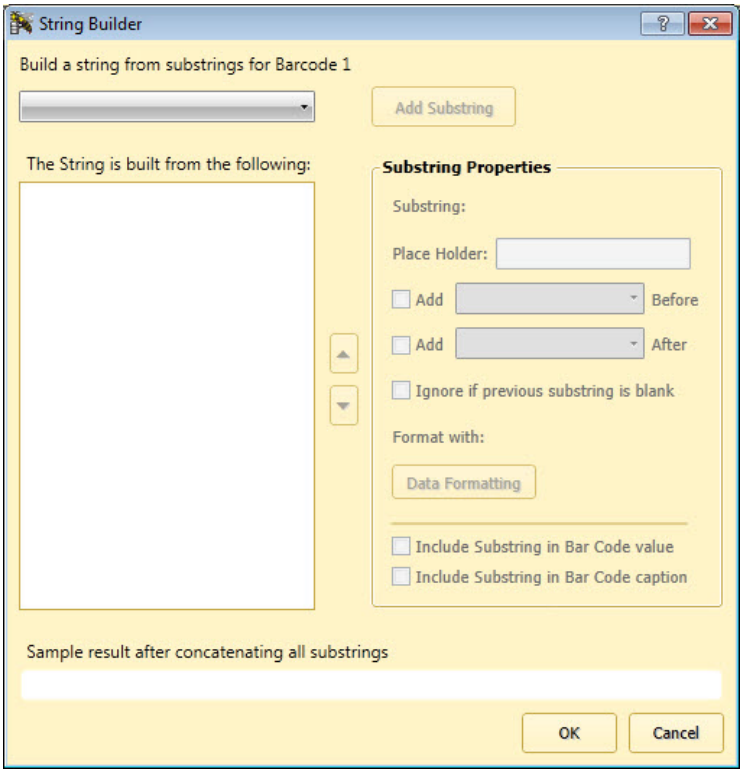
For example, if you want your barcode to have a serialized number followed by a space, you would use the String Builder to accomplish this.

Click here for a detailed example of using String Builder to concatenate two different data sources in your barcode.

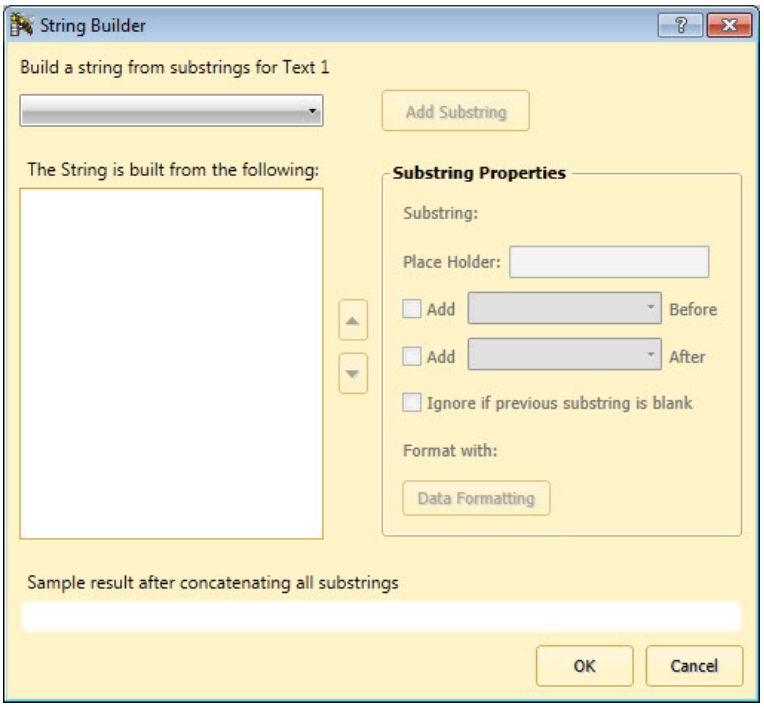
Steps to Create Substrings Using String Builder

1. With the text box or barcode object selected, click the **String Builder** button on the **Properties Box > Data Source Tab**. The **String Builder** screen appears. Note that the **String Builder** screen is different for barcodes and text boxes.

String Builder Screen - Barcodes



String Builder Screen - Text Boxes



2. Select the data source from the drop down menu, then click the **Add Substring** button. The options will vary depending on the type of object you have selected. Options are:

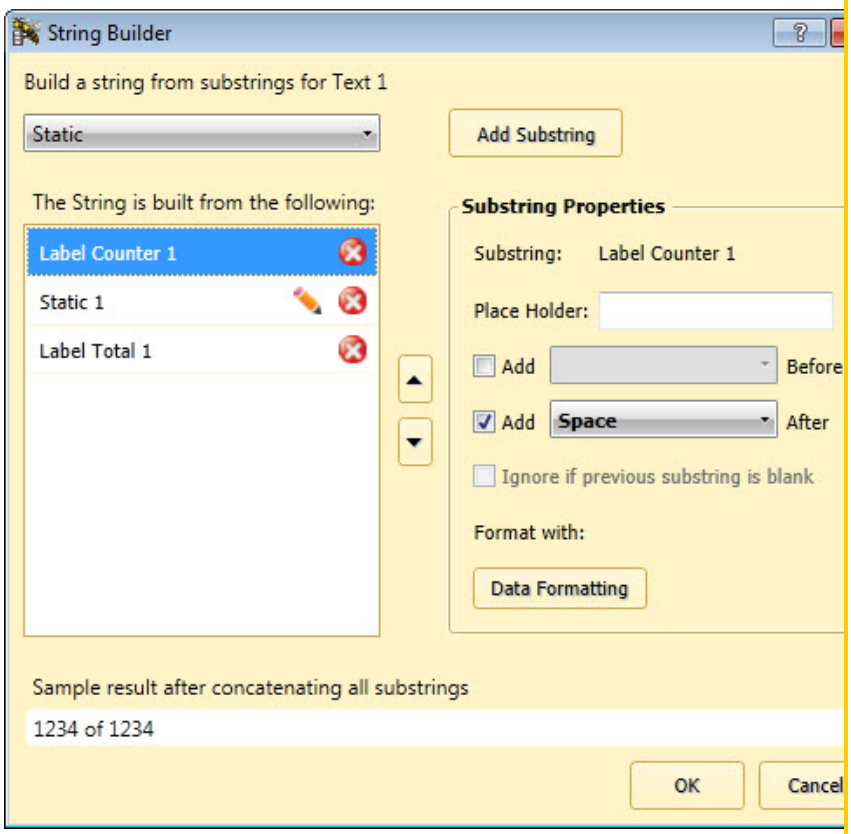
   - **Database Column -** This option allows you to select a column from the data source associated with your label file. You must have a data source associated with the current label in order to use this option. If you have not yet connected to a data source, please refer to the topic **Data Tab Overview** for detailed instructions.
   - **Serialized Number** - The Serialized Number option allows you to create serial numbers for your labels based on a beginning number you select.
   - **Serialized Alpha** - The Serialized Alpha option allows you to serialize your labels alphabetically based on a beginning letter you select.
   - **Static -** This option allows you to enter static text or characters that will appear on all of your labels.
   - **User Defined List** - Labeler contains a set of pre-defined lists you can select from or you can create your own lists.
   - **Date/Time** - This option displays the current date/time (or a date/time of your choosing) on the associated object.
   - **Prompt at Print** - This option allows you to enter a question, or prompt, for information that will appear when you print the label.
   - **Bind to another Object** - This allows you to bind the substring to another object that already has a data source.
   - **Label Counter (Text Box Only)** - This option allows you to put

a label counter on a text box. A Label Counter counts the number of physical, unique labels that are printed (determined in the Number of Labels fields on the Print tab).

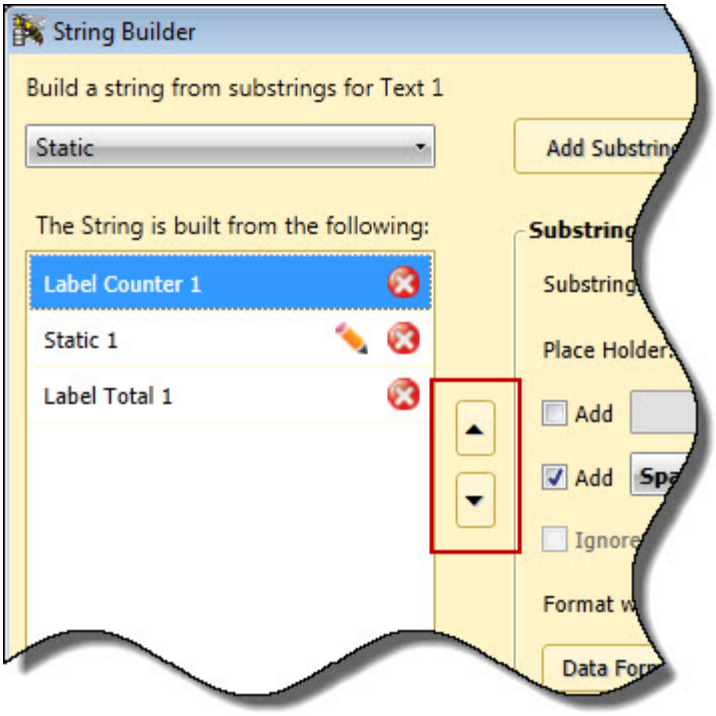
- **Label Total (Text Box Only)** - This option displays the total number of physical, unique labels printed.
- **Copies Counter (Text Box Only)** - This option allows you to put a copies counter on a text box. A "copies counter" counts the number of identical copies of a label that are printed (determined in the Number of Copies fields on the Print tab).
- **Copies Total (Text Box Only)** - This option displays the total number of identical copies of a label that are printed.

Note: You can use the **Counter** and **Total** substrings to create enumerated labels (1 of 5, 2 of 5, 3 of 5, etc.) For a detailed example of how to create enumerated labels with and without serial numbers, please refer to the topic **Creating Enumerated Labels**.

3. Substrings you add will appear in the window as shown below:

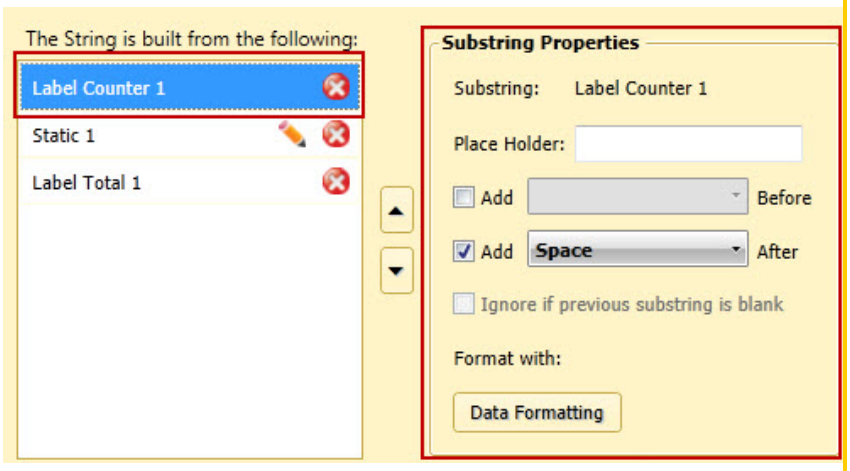


A sample of the entire string appears in the **Sample result after concatenating all substrings** field. You can reorder substrings by clicking the up or down arrows to the right of the substring list:



You can edit a substring by clicking on the **Pencil** icon or delete it by clicking the red **X** icon.

4. To edit **Substring Properties**, highlight a substring in the window. The selected **Substring** name appears in the **Substring:** field:



5. For dynamic data sources that pull data from an external source, such as a text file or Access database, you can enter a place holder in the **Place Holder** field. The content you enter here will appear in the text box or barcode as a 'place holder' for display purposes, but will change to the content pulled from the external source at print time.

6. Select the **Add** checkbox(s), then select **Carriage Return** or **Space** from the drop down. This adds a carriage return or space **Before** and/or **After** the selected substring.

7. Select the **Ignore if Previous** substring is blank if you want Labeler to skip the selected substring if no data is found for the previous substring in the list.

8. You can add formatting to a substring by clicking the **Data Formatting** button. **Click here for a detailed description of creating format expressions.**

9. For barcodes, you have two additional options:

   Use in barcode value - Select this checkbox to include the substring in the barcode value. This means the substring will be encoded in the barcode.
   Use in barcode caption - Select this checkbox to include the substring in the barcode caption.

3.6.9 Formatting Data

In this topic:

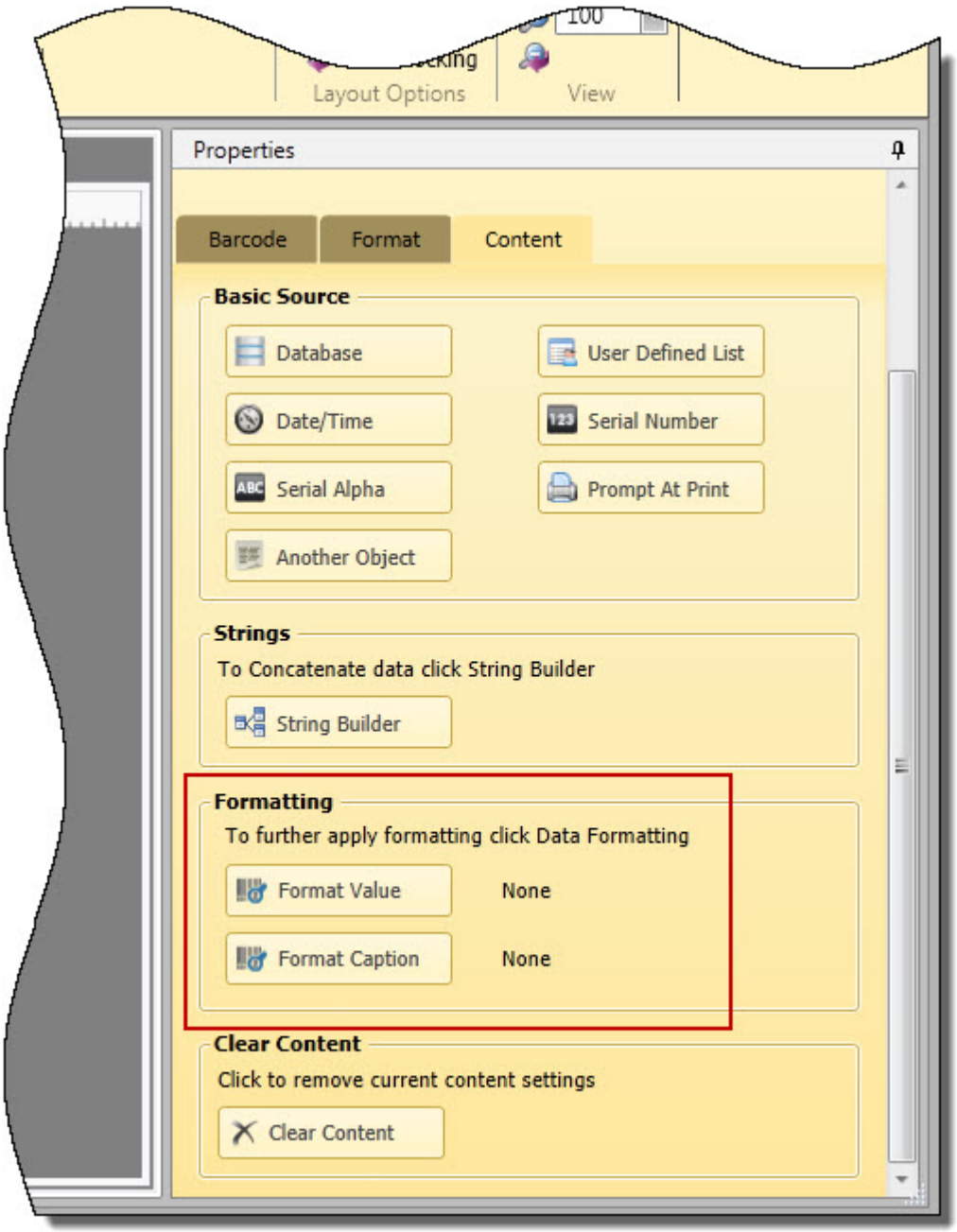
Steps to Access and Use the Format Value Screen
Character Formatting Definitions and Examples
Number Formatting Definitions and Examples
String Formatting Definitions and Examples
Custom Date and Time Formatting (DATEFORMAT Command)
    DATEFORMAT Characters and Definitions
    Example DATEFORMAT Expressions
Removing Unwanted Spaces from Data (TRIM Command)

The **Formatting** section on the **Properties box > Data Source tab** allows you to add formatting to your barcode caption or to the value encoded in your barcode. To do this you will create a Format Expression using standard characters to represent digits placeholders, decimal placeholders, percentage placeholders, etc.

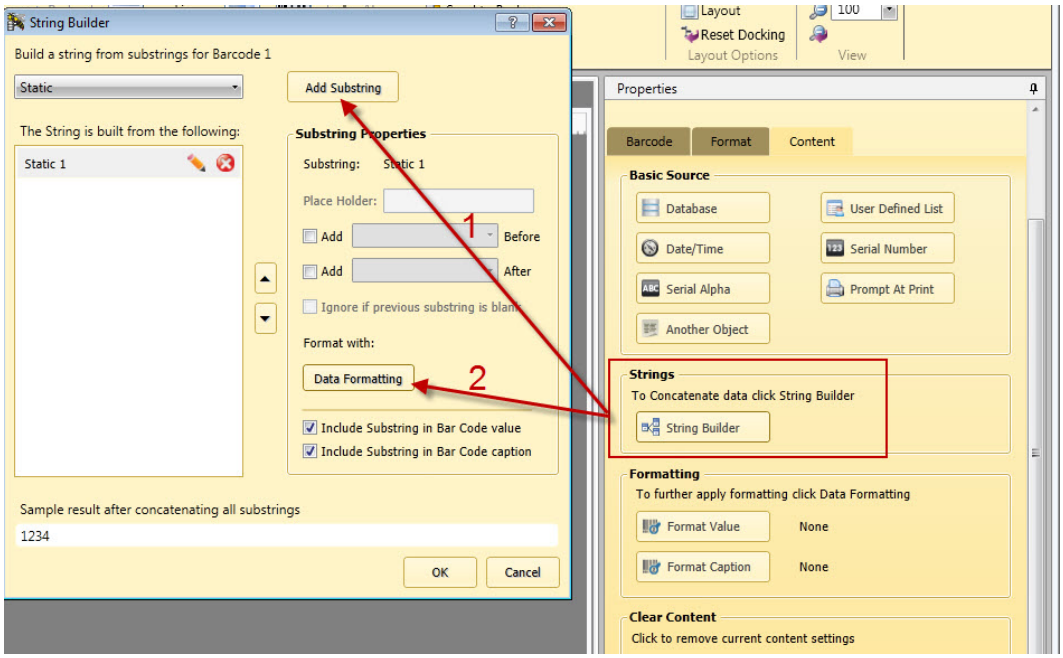
Steps to Access and Use the Format Value/Caption Screen

1. There are two methods for accessing the **Format** screen.

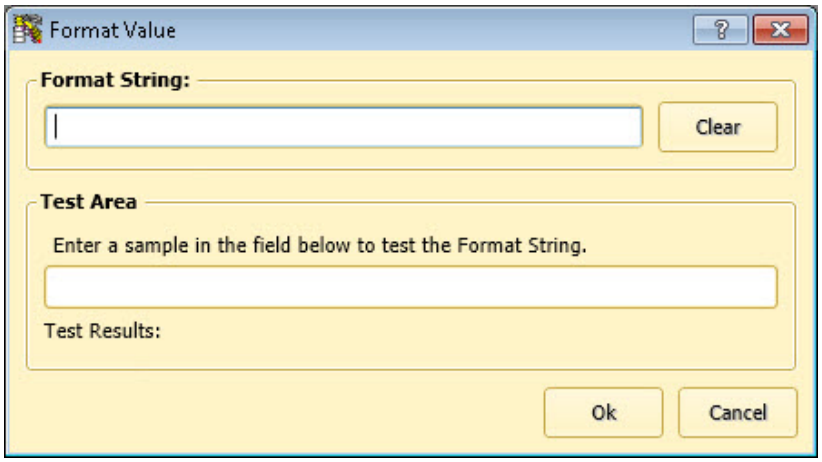
   a. After you have added a barcode or text box to your label and bound data to it, click on the **Format Value** or **Format Caption** buttons in the **Properties Box > Content Tab > Formatting** section.



b. If you are creating an object with substrings, click **String Builder** in the **Strings** section. Add a **Substring**, then click **Data Formatting** (the **Data Formatting** button will be disabled until you create at least one substring). For detailed information on creating substrings, please refer to the **String Builder** topic.



The **Format Value/Format Caption** screen appears. **Note:** The **Format Value** and **Format Caption** screens are identical and function the same way. The screen shots/verbiage in this topic refer to "Format Value" but are applicable to the **Format Caption** screen.



2. Enter your format expression in the **Format String** text box. This expression serves as a "mask" that will be placed on all data pulled from the data source. You can create format expressions for **Strings** (Characters or combination of numbers and characters), **Numbers** or **Dates**.

Formatting Character Definitions and Examples

The tables below contain the formatting characters, their meanings and additional information about each one. You will combine these characters to create your format expression.

Number Formatting			
Character	**Definition**	**Additional Information**	**Examples**
0	Digit Placeholder	Display a digit or a zero. If there is a digit in the position where the 0 appears in the format string, display it; otherwise display a zero in that position. If the number being formatted has fewer digits than there are zeros (on either side of the decimal) in the format expression, leading or trailing zeros are displayed. If the number has more digits to the right of the decimal separator than there are zeros to the right of the decimal separator in the format expression, the number is rounded to as many decimal places as there are zeros. If the number has more digits to the left of the decimal separator than there are zeros to the left of the decimal separator in the format expression, the extra digits are displayed without modification.	1234.5678 ("00000") = 012345 0.45678 ("0,00") = 0.46
#	Digit Placeholder	Display a digit or nothing. If there is a digit in the position where the # appears in the format string, display it; otherwise, display nothing in that position. This symbol works like the 0 digit placeholder, except that leading and trailing zeros aren't displayed if the number has the same or fewer digits than there are # characters on either side of the decimal separator in the format expression.	1234.5678 ("#####") = 12345 0.45678 (#.##") = .46
.	Decimal Placeholder	The decimal placeholder determines how many digits are displayed to the left and right of the decimal separator. If the format expression contains only numbers sign to the left of this symbol, numbers smaller than 1 begin with a decimal separator. If you want a leading zero to always be displayed with fractional numbers, use 0 as the first digit placeholder to the left of the decimal separator instead.	0.45678 ("0.00") = 0.46
%	Percentage Placeholder	The expression is multiplied by 100. The percent character (%) is inserted in the position where it appears in the format string.	0.3697 ("%#0.00") = %36.97 0.3697 ("##.0%") = 37.0%
,	Thousand Separator	The thousand separator separates thousands from hundreds within a number that has four or more places to the left of the decimal separator. Surround the thousand separator with the digit placeholders (0 or #). Two adjacent commas or a comma immediately to the left of the decimal separator (whether or not a decimal is specified) means "scale the number by dividing it by 1000, rounding as needed." You can scale large numbers using this	2147483647 ("#,#,,") = 2,147

		technique. For example, you can use the format string "##0,," to represent 100 million as 100. Numbers smaller than 1 million are displayed as 0. Two adjacent commas in any position other than immediately to the left of the decimal separator are treated simply as specifying the use of a thousand separator. The actual character used as the thousand separator in the formatted output depends on the Number Format specified in the International section of the Control Panel. For some countries, a period is used as the thousand separator.	
E- E+ e- e+	Exponential Notation	If the format expression contains at least one digit placeholder (0 or #) to the right of E-, E+, e-, or e+, the number is displayed in scientific format and E or e is inserted between the number and its exponent. The number of digit placeholders to the right determines the number of digits in the exponent. Use E- or e- to place a minus sign next to negative exponents. Use E+ or e+ to place a minus sign next to negative exponents and a plus sign next to positive exponents.	987654 ("0.0e0") = 98.8e4 1503.92311 ("0.0##e+00") = 1.504e+03
- + $ ( )	Display a literal character	To display a character other than one of those listed, precede it with a backslash (\) or enclose it in double quotation marks (" ").	
****	Escape Character	Many characters in the format expression have a special meaning and can't be displayed as literal characters unless they are preceded by a backslash. The backslash itself isn't displayed. Using a backslash is the same as enclosing the next character in double quotation marks. To display a backslash, use two backslashes (\\). For example, the numeric-formatting characters (#, 0, %, E, e, comma, and period) and the string-formatting characters (@, &, <, >, and !) can't be displayed.	987654 ("\###00\#") = #987654#
"ABC"	Literal String Delimiter	Indicates that the enclosed characters should be copied to the result string unchanged.	68 ("#' degrees'") = 68 degrees
;	Section Separator	Defines sections with separate format strings for positive, negative and zero numbers. A format expression can have from one to four sections separated by semicolons. The first section applies to positive values, the second to negative values, the third to zeros and the fourth to Null values.	

String Formatting		
Character	**Definition**	**Additional Information and Examples**
@	Character placeholder	Display a character or a space. If there is a character in the string being formatted in the position where the @ appears in the format string, display it; otherwise, display a space in that position. Placeholders are filled from right to left unless there is an ! character in the format string.
&	Character placeholder	Display a character or nothing. If there is a character in the string being formatted in the position where the & appears in the format string, display it; otherwise, display nothing in that position. Placeholders are filled from right to left unless there is an ! character in the format string.
<	Force lowercase	All characters are displayed in lowercase format
>	Force uppercase	All characters are displayed in uppercase format.
!	Force placeholders to fill from left to right instead of right to left	
"ABC"	Literal String Delimiter	Indicates that the enclosed characters should be copied to the result string unchanged.

Custom Date and Time Formatting (DATEFORMAT Command)

Labeler always stores date as DateTime format. This means that if you have a column in your data that is just a date, Labeler will add the default time of 12:00:00 AM to it. If you do not want to show the time on your label, use the DATEFORMAT function described below.

DATEFORMAT Characters and Definitions
Example DATEFORMAT Expressions

DATEFORMAT Characters and Definitions			
Character	**Definition**	**Additional Information**	**Result**
d	Day of the Month	The day of the month, from 1 through 31.	9/26/2011 1:33:45 = 26 9/1/2011 1:33:45 = 1
dd	Day of the Month	The day of the month, from 01 through 31.	9/26/2011 1:33:45 = 26 9/1/2011 1:33:45 = 01
ddd	Abbreviated Day of Week	The abbreviated day of the week.	9/26/2011 1:33:45 = Mon
dddd	Full Day of Week	The full name of the day of the week.	9/26/2011 1:33:45 = Monday
g or gg	Period or Era	The period or era (A.D.)	9/26/2011 1:33:45 = A.D.
h	Hour	The hour using a 12-hour clock from 1 to 12.	9/26/2011 1:33:45 AM = 1 9/26/2011 1:33:45 PM = 1
hh	Hour	The hour using a 12-hour clock from 01 to 12.	9/26/2011 1:33:45 AM = 01 9/26/2011 1:33:45 PM = 01
H	Hour	The hour using a 24-hour lock from 0 to 23.	9/26/2011 1:33:45 AM = 1 9/26/2011

			1:33:45 PM = 13
HH	Hour	The hour using a 24-hour clock from 00 to 23.	9/26/2011 1:33:45 AM = 01 9/26/2011 1:33:45 PM = 13
m	Minute	The minute from 1 through 59	9/26/2011 1:01:45 AM = 1 9/26/2011 1:01:45 PM = 1
mm	Minute	The minute from 00 through 59	9/26/2011 1:01:45 AM = 01 9/26/2011 1:01:45 PM = 01
M	Month	The month from 1 through 12.	9/26/2011 1:01:45 AM = 9
MM	Month	The month from 01 through 12.	9/26/2011 1:01:45 AM = 09
MMM	Month	The abbreviated name of the month.	9/26/2011 1:01:45 AM = Sept
MMMM	Month	The full name of the month	9/26/2011 1:01:45 AM = September
s	Second	The second from 0 through 59.	9/26/2011 1:01:01 AM = 1
ss	Second	The second from 00 through 50.	9/26/2011 1:01:01 AM = 01
t	AM/PM	The first characters of the AM/PM designator.	9/26/2011 1:01:45 AM = A
tt	AM/PM	The AM/PM designator.	9/26/2011 1:01:45 AM = AM
y	Year	The year from 0 to 99.	
yy	Year	The year from 00 to 99.	
yyy	Year	The year with a minimum of three digits.	
yyyy	Year	The year as a four digit number.	

:	Time Separator	The time separator.	9/26/2011 1:01:45 AM = :
/	Date Separator	The date separator.	9/26/2011 1:01:45 AM = /
"ABC"	Literal String Delimiter	Indicates that the enclosed characters should be copied to the result string unchanged.	9/26/2011 1:01:45 AM ("arr:" h"m t) arr: 1:45 A
%	Custom Format Specifier	Defines the following character as a custom format specifier.	9/26/2011 1:01:45 AM (%h) = 1
****	Escape Character	Many characters in the format expression have a special meaning and can't be displayed as literal characters unless they are preceded by a backslash. The backslash itself isn't displayed. Using a backslash is the same as enclosing the next character in double quotation marks. To display a backslash, use two backslashes (\\). For example, the numeric-formatting characters (#, 0, %, E, e, comma, and period) and the string-formatting characters (@, &, <, >, and !) can't be displayed.	9/26/2011 1:01:45 AM (h \h) = 1 h
Any other character		The character is copied to the result string unchanged.	9/26/2011 1:01:45 AM (arr hh:mm t) = arr 01:45 A

Example Data and Time Format Expressions

Enter a custom date format in the format shown below:

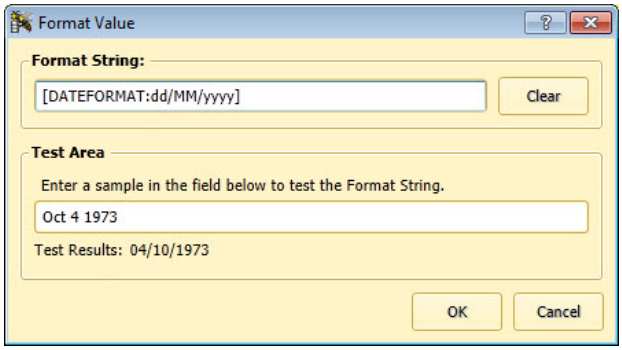
[DATEFORMAT:<format string here>]

The “DATEFORMAT:” prefix must be specified, followed by the <format string here> section. Inside the <format string here> you can enter any valid formatting string from the table above. The [] brackets are required.

Example 1

[DATEFORMAT:dd/MM/yyyy]

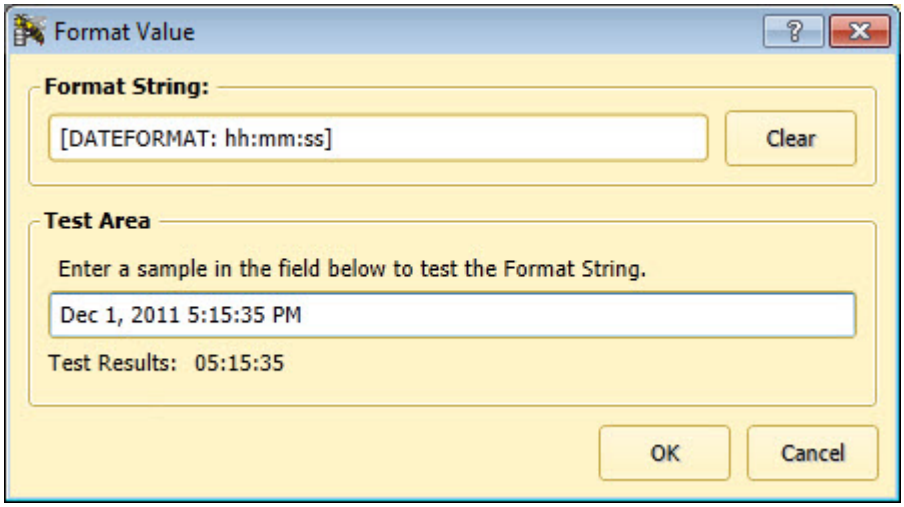
If the value Oct 4, 1973 is entered, the Test Results will display 04/10/1973 as shown in the screen example below:



Example 2

[DATEFORMAT: hh:mm:ss]

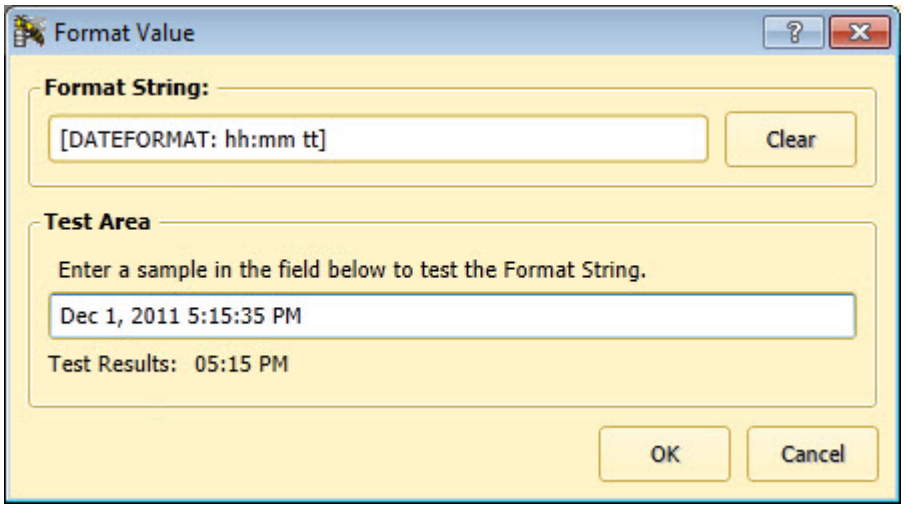
If the value Dec 1, 2011 5:15:35 PM is entered, the Test Results will display 05:15:35.



Example 3

[DATEFORMAT: hh:mm tt]

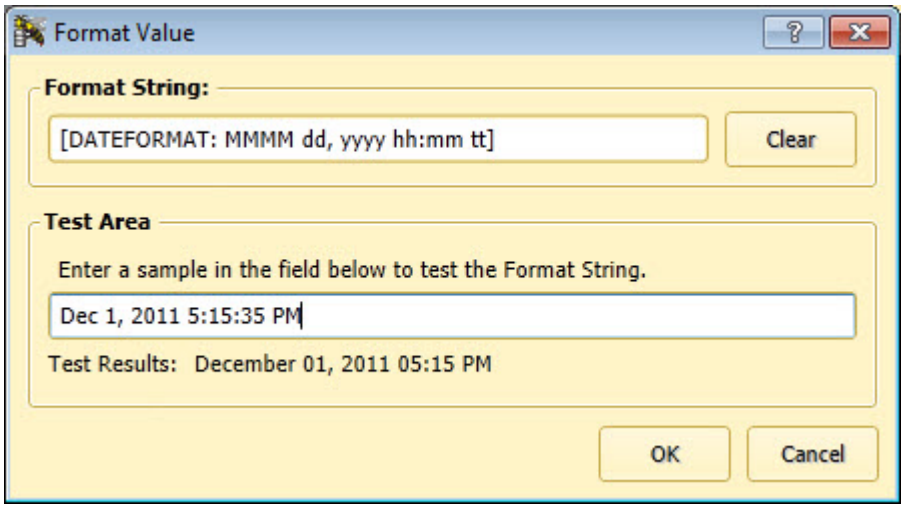
If the value Dec 1, 2011 5:15:35 PM is entered, the Test Results will display 05:15 PM.



Example 4

[DATEFORMAT: MMMM dd, yyyy hh:mm tt]

If the value Dec 1, 2011 5:15:35 PM is entered, the Test Results will display December 01, 2011 05:15 PM.



Removing Unwanted Spaces from Data (TRIM Command)

There may be instances where data source has spaces at the end or beginning of data. You can use the "TRIM" function to remove unwanted spaces from the final output on your label. The formatting commands for removing spaces are provided below:

- [LEFT:3] - This command returns the first 3 characters from the input.
- [LTRIM LEFT:3] ------> same as above, but before it performs a LTRIM on the input, then the LEFT:3 will be applied to the result
- [RTRIM LEFT:3] ------> same as above, but before it performs a RTRIM on the input, then the LEFT:3 will be applied to the result
- [TRIM LEFT:3] ------> same as above, but before it performs a TRIM on the input, then the LEFT:3 will be applied to the result
- [RIGHT:3] ------> This command returns the last 3 characters from the input.
- [LTRIM RIGHT:3] ------> same as above, but before it performs a LTRIM on the input, then the RIGHT:3 will be applied to the result
- [RTRIM RIGHT:3] ------> same as above, but before it performs a RTRIM on the input, then the RIGHT:3 will be applied to the result
- [TRIM RIGHT:3] ------> same as above, but before it performs a TRIM on the input, then the RIGHT:3 will be applied to the result
- [MID:2,3] ------> This command returns the substring starting at position 2 returning the next 3 chars that appear
- [LTRIM MID:2,3] ------> same as above, but before it performs a LTRIM on the input, then the MID:2,3 will be applied to the result
- [RTRIM MID:2,3] ------> same as above, but before it performs a RTRIM on the input, then the MID:2,3 will be applied to the result
- [TRIM MID:2,3] ------> same as above, but before it performs a TRIM on the input, then the MID:2,3 will be applied to the result

ASCII Special Character Codes

ASCII (American Standard Code for Information Interchange) codes represent 128 characters. 33 of these are non-printable markers that define how spaces are handled by a scanner or printer (line breaks, tabs, etc.). Below is a table of the non-printable ASCII character codes and their associated definitions:

Code	Definition
<SOH>	Start of Header
<STX>	Start of Text
<ETX>	End of Text
<EOT>	End of Transmission
<ENQ>	Enquiry
<ACK>	Acknowledgment
<BEL>	Bell
<BS>	Backspace
<TAB>	Horizontal Tab

<LF>	Line Feed
<VT>	Vertical Tab
<FF>	Form Feed
<CR>	Carriage Return
<SO>	Shift Out
<SI>	Shift In
<DLE>	Data Link Escape
<DC1>	Device Control 1
<DC2>	Device Control 2
<DC3>	Device Control 3
<DC4>	Device Control 4
<NAK>	Negative Acknowledgment
<SYN>	Synchronous Idle
<ETB>	End of Transmission Block
<CAN>	Cancel
<EM>	End of Medium
<SUB>	Substitute
<ESC>	Escape
<FS>	File Separator
<GS>	Group Separator
<RS>	Record Separator
<US>	Unit Separator
<SP>	Space
<DEL>	Delete

The remaining codes represent printable characters such as the exclamation point (!), period (.), comma (,), etc. Upper and lower case alphabetic characters are also represented.

Chapter 4 - Data Tab

4.1 Data Tab Overview

In this topic:

Select an External Data Source
Sort the Data Source Content
Filter the Data Source Content
Join Tables
Refresh Data
Edit Connection
Remove Connection

The **Data** tab allows you to add a database, spreadsheet, .csv file or other data source to your label project. You can then associate an object on your label, such as a text field or a barcode with the data source using the **Properties > Contents** box on the **Design** tab. Using a data source allows for the "automation" of your labels as Labeler will extract the data from the associated data source and use that as the content for your text field, barcode, picture, etc.

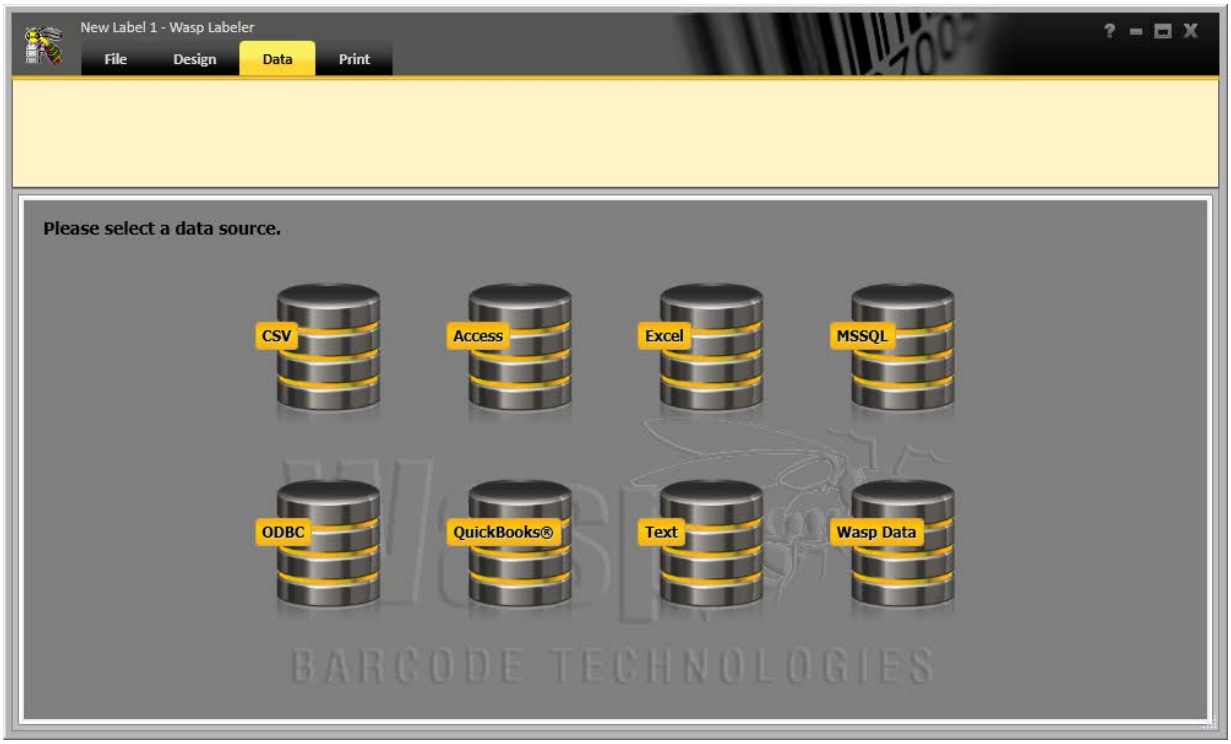
Example - When to Use an External Data Source

Using an external database from which to draw data is useful if your company has inventory information stored in a database (Microsoft Access or Excel, any ODBC compliant data source, a delimited text file, etc) from which inventory labels with barcodes are produced.

Another example might be that a company needs to print mailing labels for their customers where the customer address information is stored in a spreadsheet. In either case, Labeler can easily access the data from the external data source and apply it to the label.

Please refer to the topic **Getting Started - Binding a Data Source to an Object** for a step-by-step example of linking an object to an external source.

On the **Data** tab you can add one external data source and define which columns and rows you want to include. Adding a data source here makes it available to bind to objects on the **Design Tab**.



Select an External Data Source

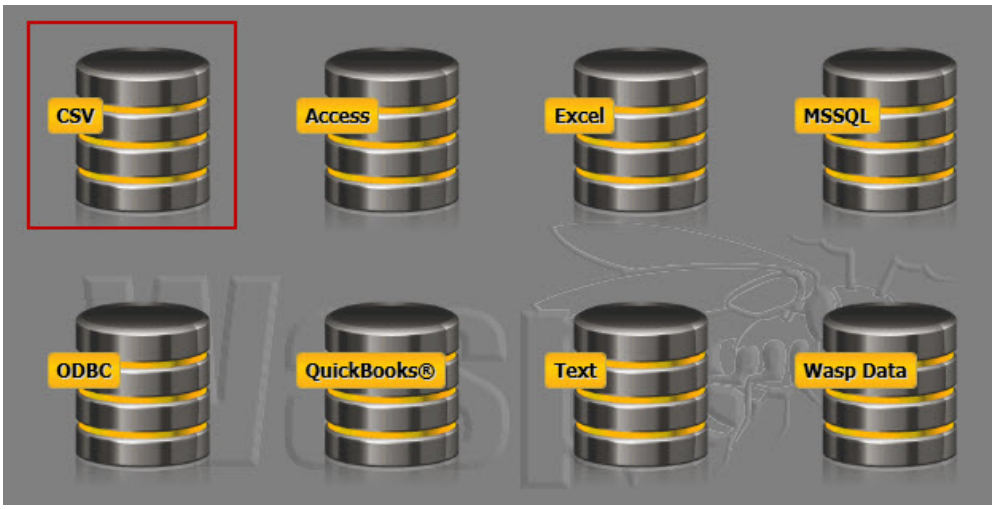
To create a connection to an external data source, click on the desired data source type on the **Data** tab.

Your options are:

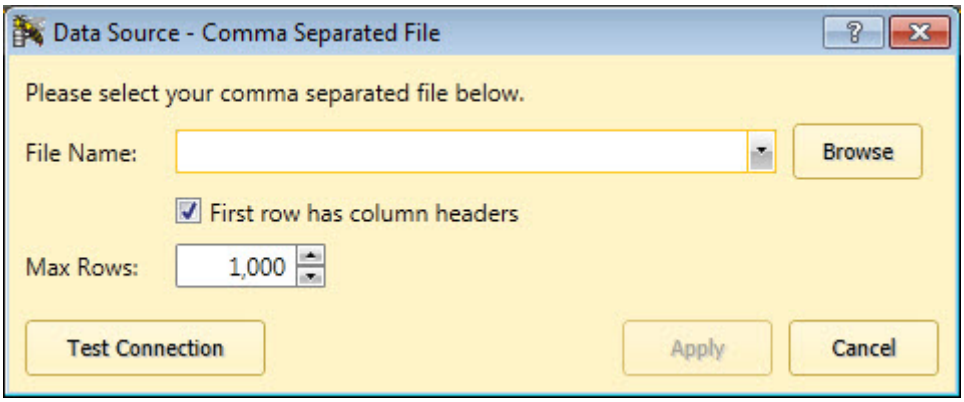
CSV File
Access Database
Excel Spreadsheet
MSSQL
ODBC Connection
QuickBooks®
Text File
Wasp Data (this option allows you to create your own Wasp database)

4.2 Connecting to a CSV File

1. On the **Data** tab click the CSV option.



2. The **Data Source - Comma Separated File** screen appears:



3. Enter the file name and location or click the **Browse** button to navigate to the file.

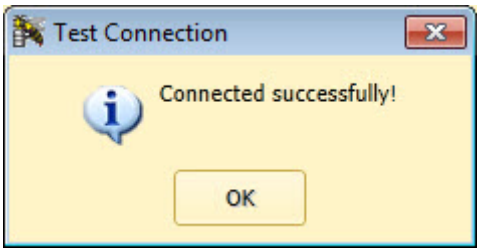
   When you click **Browse**, a browser window will appear allowing you to navigate to your file. After you select your file and click **OK** on the browser window, the **Data Source - Comma Separated File** screen will populate with the path and name of your data source in the **File Name** field.

4. If the first row of your file contains column headers, make sure the **First Row is Column Headings** checkbox is selected.

5. The maximum rows included in your label defaults to 1,000. You can enter a smaller or larger number as needed in the **Max Rows** field.

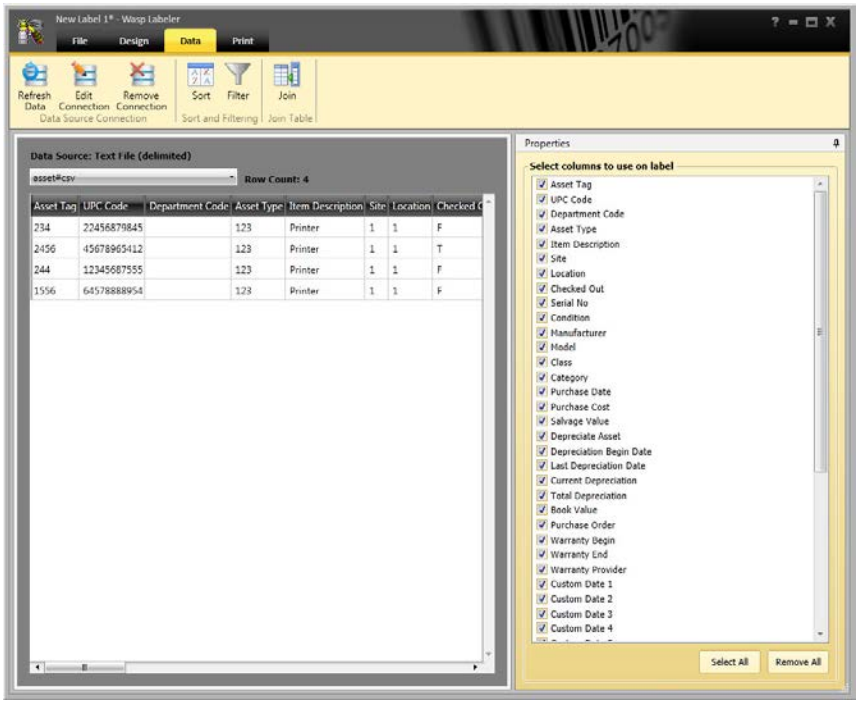
Enter 0 (zero) to return all rows of data. Keep in mind that a very large number of rows may result in slower performance.

6. Click **Test Connection** to make sure Labeler is able to successfully establish a connection to the selected file. If a connection is established, the message shown below appears:



Click **OK** on the **Test Connection** message to close it.

7. Click **Apply** to add the connected file to your Labeler project. The data contained in the selected file will appear on the **Data** tab as shown in the example below:

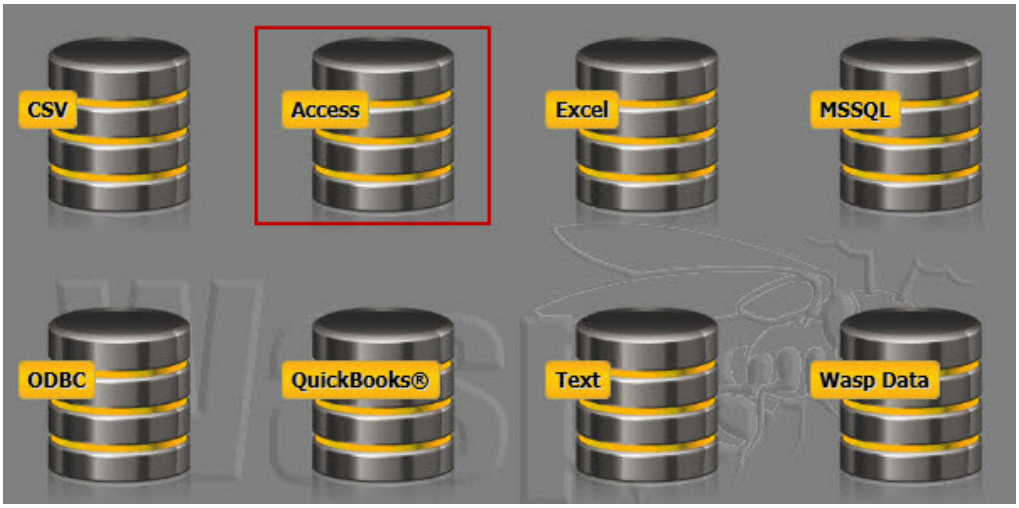


8. You can now perform the following functions:

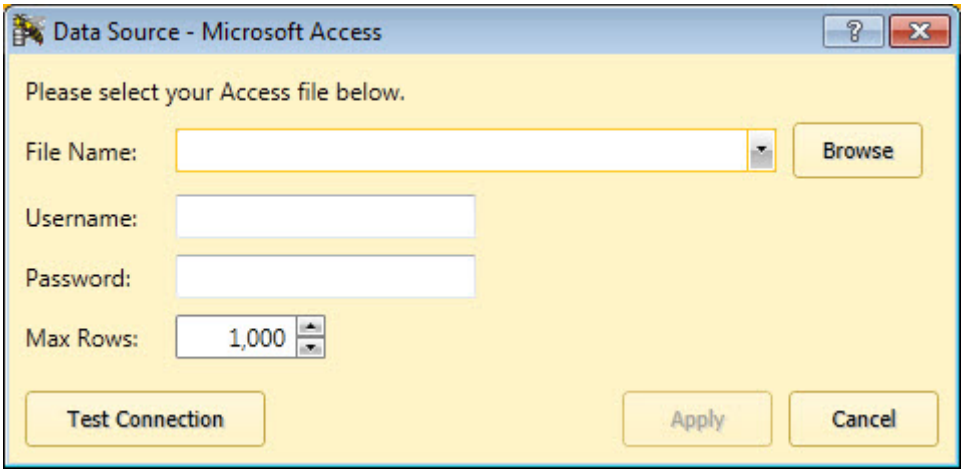
Refresh the Data
Edit the Connection
Remove Connection
Sort the Data
Filter the Data
Join two or more tables

4.3 Connecting to a Microsoft Access Database

1. On the **Data** tab click the Access option.



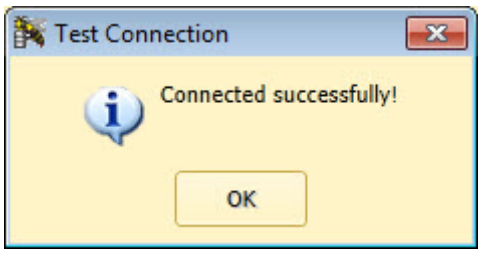
2. The **Data Source - Microsoft Access** screen appears:



3. Click **Browse** to navigate to the Access database. After you make your selection the path will appear in the **File Name** field.

4. If you have security setup on the database, enter your user name and password. This is the same **User Name** and **Password** used when opening the database directly.

   You can click the **Test Connection** button to make sure you are connected to the database. If a connection is established, the message shown below appears:



   Click **OK** on the **Test Connection** message to close it.
5. Click **Apply** to select the database. You can optionally change the **Max Row** count to return more rows from the database. Keep in mind that returning a large number of rows can result in slower performance

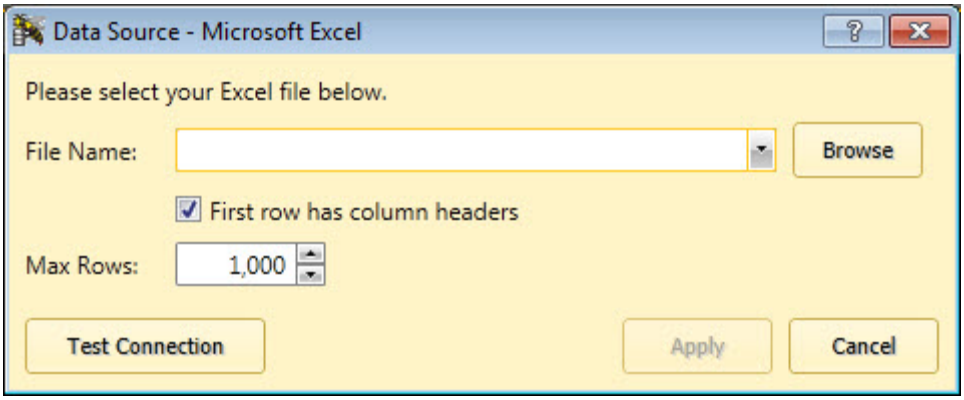
   Your data will appear on the **Data** tab..
6. You can now perform the following functions:

   Refresh the Data
   Edit the Connection
   Remove Connection
   Sort the Data
   Filter the Data
   Join two or more tables

4.4 Connecting to an Excel File

1. On the **Data** tab click the **Excel** option.

2. The **Data Source - Microsoft Excel** screen appears:



3. Enter the file name and location or click the **Browse** button to navigate to the file.

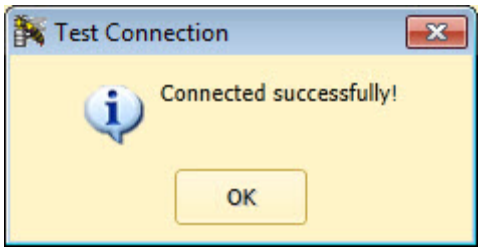
   When you click **Browse**, a browser window will appear allowing you to navigate to your file. After you select your file and click **OK** on the browser window, the **Data Source - Text File (delimited)** screen will populate with the path and name of your data source in the **File Name** field.

4. If the first row of your file contains column headers, make sure the **First Row is Column Headings** checkbox is selected.

5. The maximum rows included in your label defaults to 1,000. You can enter a smaller or larger number as needed in the **Max Rows** field.

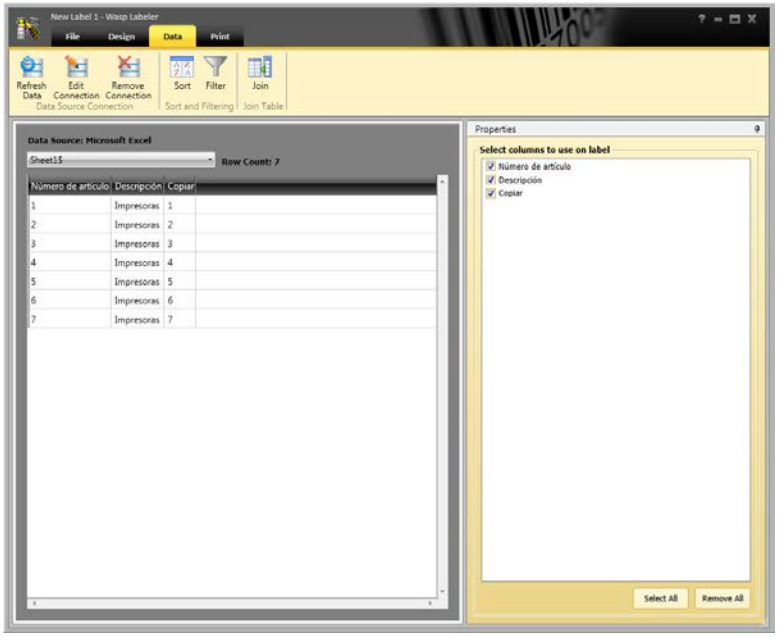
   Enter 0 (zero) to return all rows of data. Keep in mind that a very large number of rows may result in slower performance.

6. You can click the **Test Connection** button to make sure you are connected to the database. If a connection is established, the message shown below appears:



   Click **OK** on the **Test Connection** message to close it.

7. Click **Apply** to add the connected file to your Labeler project. The data contained in the selected file will appear on the **Data** tab as shown in the example below:



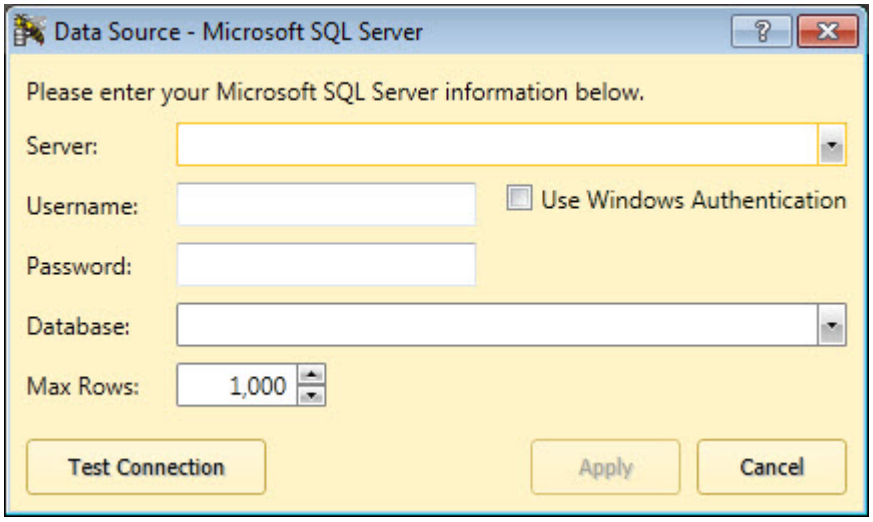
8. You can now perform the following functions:

   Refresh the Data
   Edit the Connection
   Remove Connection
   Sort the Data
   Filter the Data
   Join two or more tables

4.5 Connecting to Microsoft SQL Server

1. On the **Data** tab click the MSSQL option

The **Data Source - Microsoft SQL** Server screen appears:



2. Any SQL servers setup on your network will appear in the **Server** drop down menu. Select the desired **Server** from the drop down.

3. If you have your SQL server setup to accept Windows Authentication, select the **Use Windows Authentication** checkbox (default). If you want to use the **SQL Server Authentication**, enter your **User Name** and **Password** in the fields provided. .

   You can click the **Test Connection** button to make sure you are connected to the server.

4. A list of available databases appears in the **Database** field. Select a database from the list.

5. Click **Apply** to add the database to your label project. The **Data** tab will display the selected data.

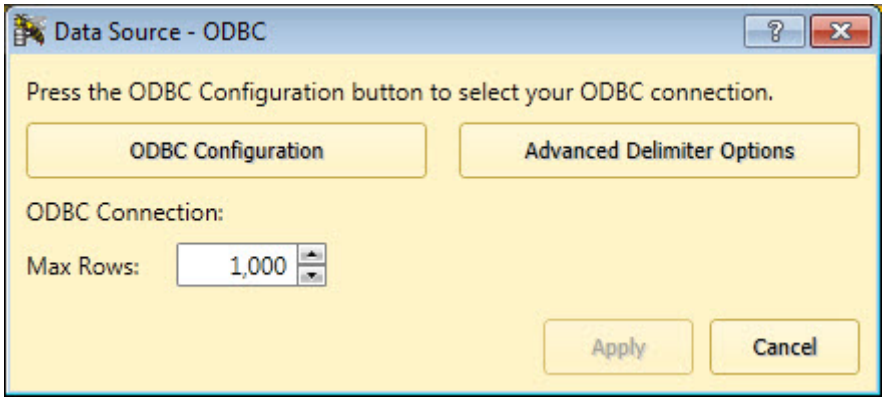
6. You can now perform the following functions:

   Refresh the Data
   Edit the Connection
   Remove Connection
   Sort the Data
   Filter the Data
   Join two or more tables

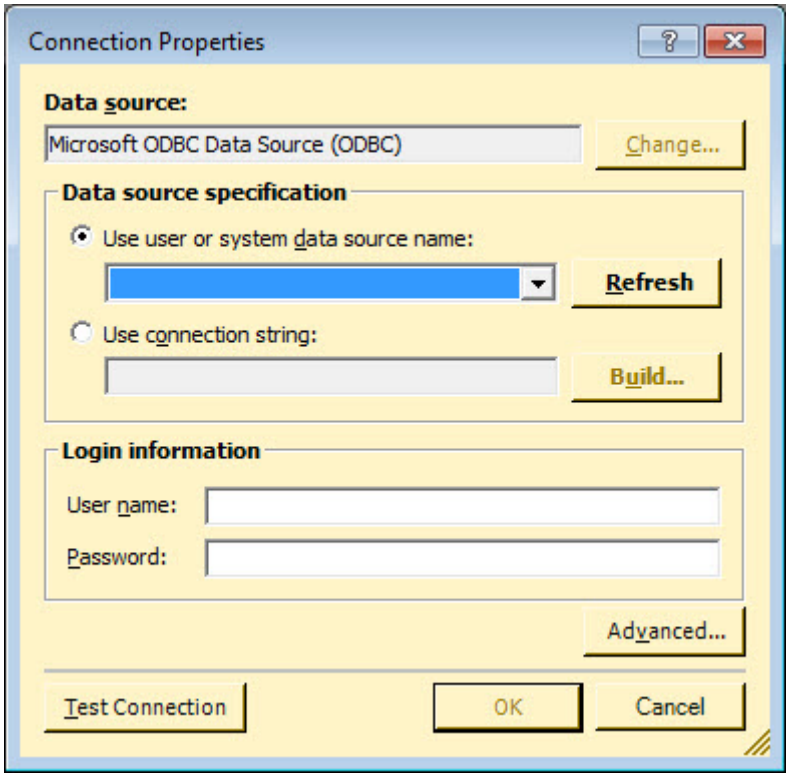
4.6 Data Source - ODBC Compliant Data Source

1. On the Data Source tab click the ODBC option.

2. The **Data Source - ODBC** screen appears:



3. Click the **ODBC Configuration** button to configure the connection. The **Connection Properties** screen appears.

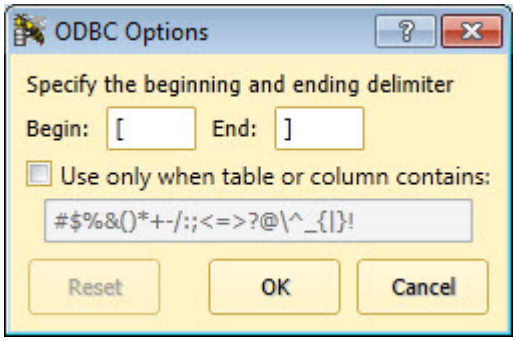


4. The installed ODBC driver read from your system will appear in the **Data Source** field. If you want to select a different driver, click the **Change** button. The **Change Data Source** screen appears. The **Change Data Source** screen is a Microsoft screen. From here you can select a different data source and make changes to it or to the connection. These changes should only be attempted if you are an advanced user.

5. The **Data Source Selection** screen appears again displaying the data source you selected.

Optional: You can specify and edit delimiters if needed.

a. Click the **Advanced Delimiter Options** button if you want to edit which delimiters Labeler will use for the data. The **ODBC Options** screen appears:



b. Enter the beginning and ending delimiter in the **Begin** and **End** fields. For instance, if the data in the ODBC data source is divided by commas, enter commas here. Brackets appear by default. Some ODBC drivers have difficulty handling square brackets [ ] in the query string.

c. Select the **Use only when table or column contains:** checkbox and accept the default entry or enter a new parameter in the text field.

d. Click **Reset** to return the options to the default values.

e. Click **OK** to save your changes and return to the **Data Source - ODBC** screen.

6. Click **Apply** to add the database to your label project. The **Data** tab will display the selected data.

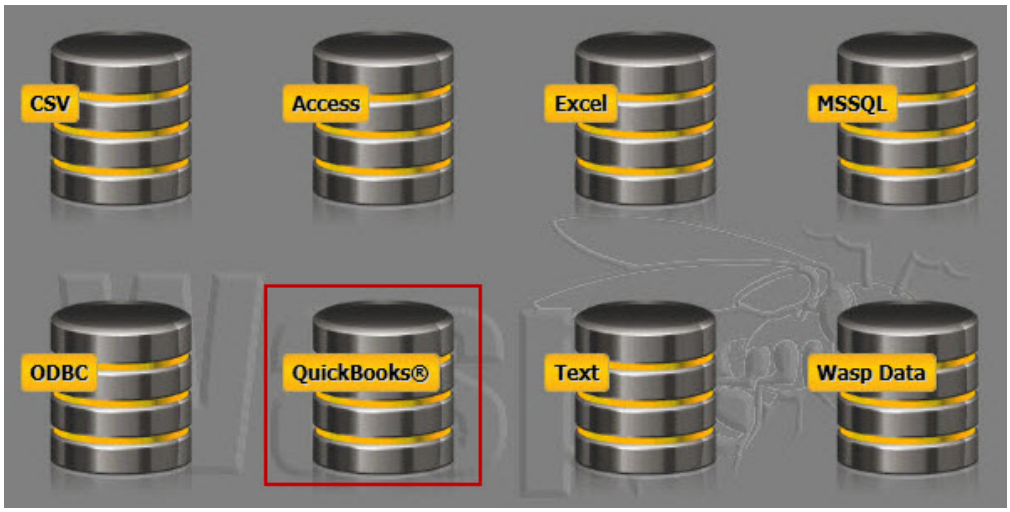
7. You can now perform the following functions:

Refresh the Data
Edit the Connection
Remove Connection
Sort the Data
Filter the Data
Join two or more tables

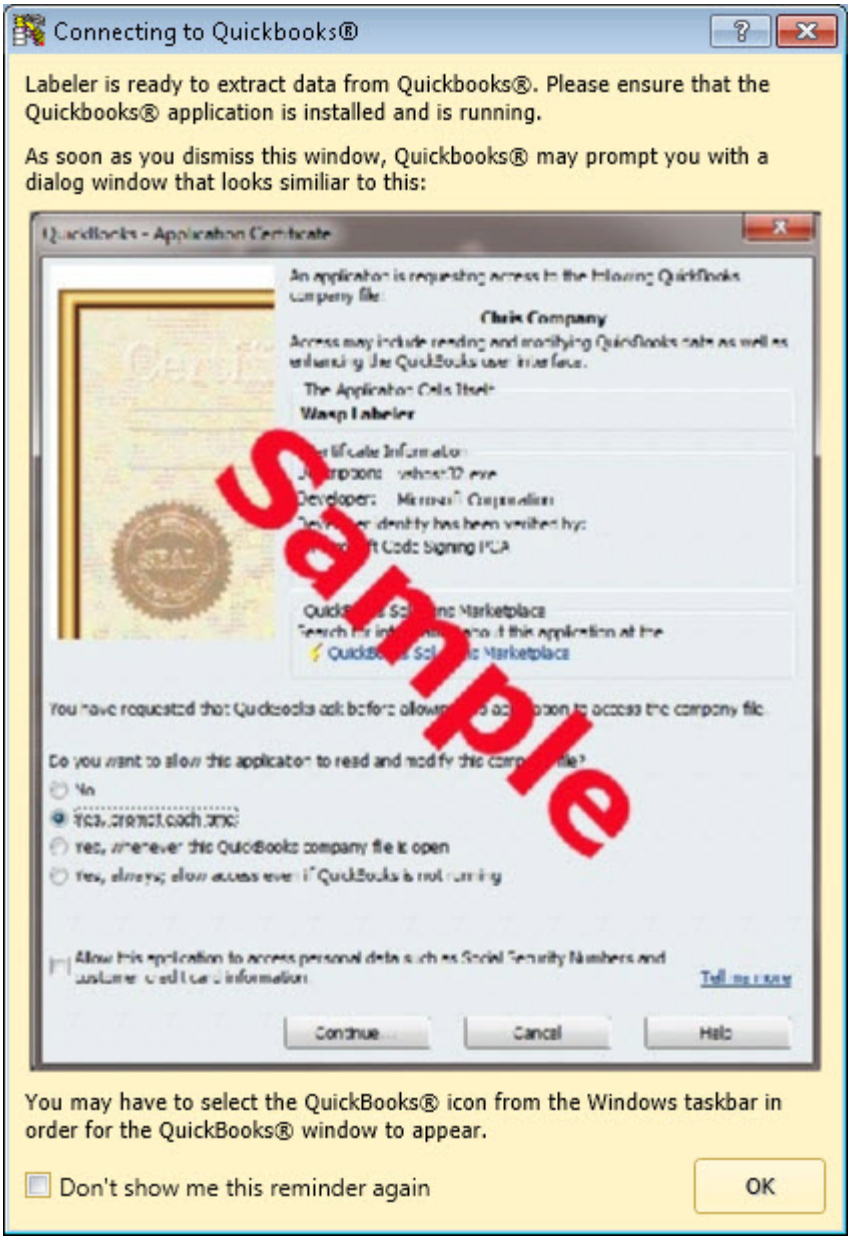
4.7 Connecting to QuickBooks®

Note: Make sure you have QuickBooks® running before connecting.

1. On the **Data** tab, click the QuickBooks® icon:



2. Select **QuickBooks®** from the **Source Type** drop down list, then click the **OK** button. The following **Connecting to** QuickBooks® message appears:


Connecting to Quickbooks®
Labeler is ready to extract data from Quickbooks®. Please ensure that the Quickbooks® application is installed and is running.
As soon as you dismiss this window, Quickbooks® may prompt you with a dialog window that looks similiar to this:
Chris Company
Wasp Labeler
Sample
You may have to select the QuickBooks® icon from the Windows taskbar in order for the QuickBooks® window to appear.
Don't show me this reminder again
OK

As indicated in the warning message, you may see a QuickBooks® message similar to the one shown on the screen after you close the **Connecting to** QuickBooks® message screen.

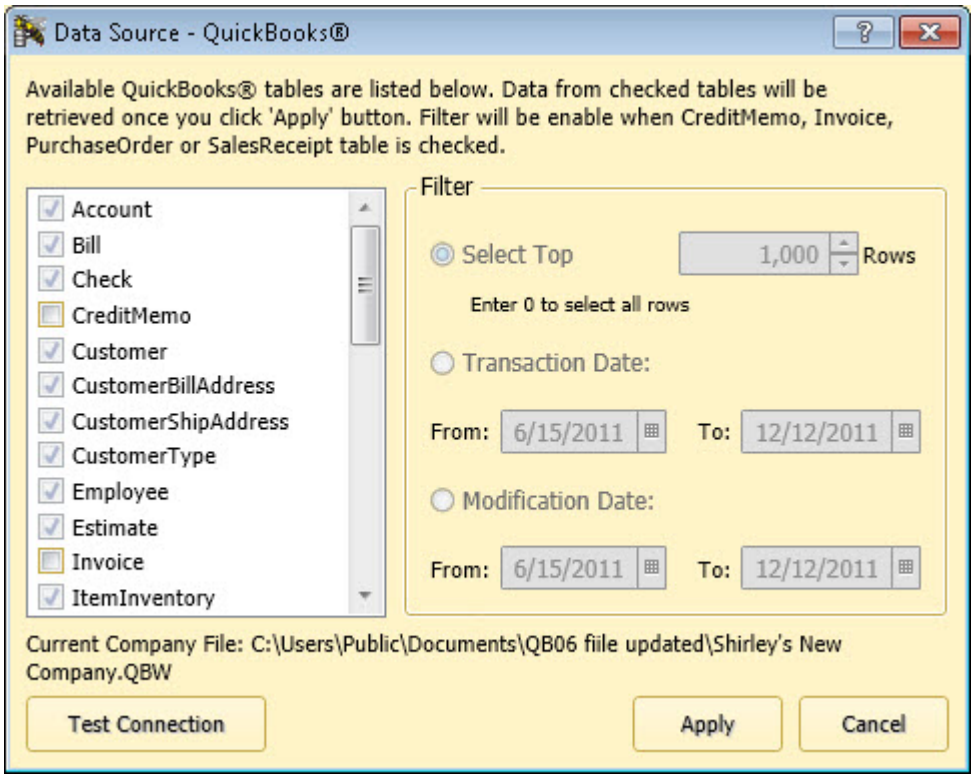
Select the **Don't show me this reminder again** checkbox if you don't want this message to display each time you connect to QuickBooks®.

3. Click **OK** to close the **Connecting to** QuickBooks® message screen.

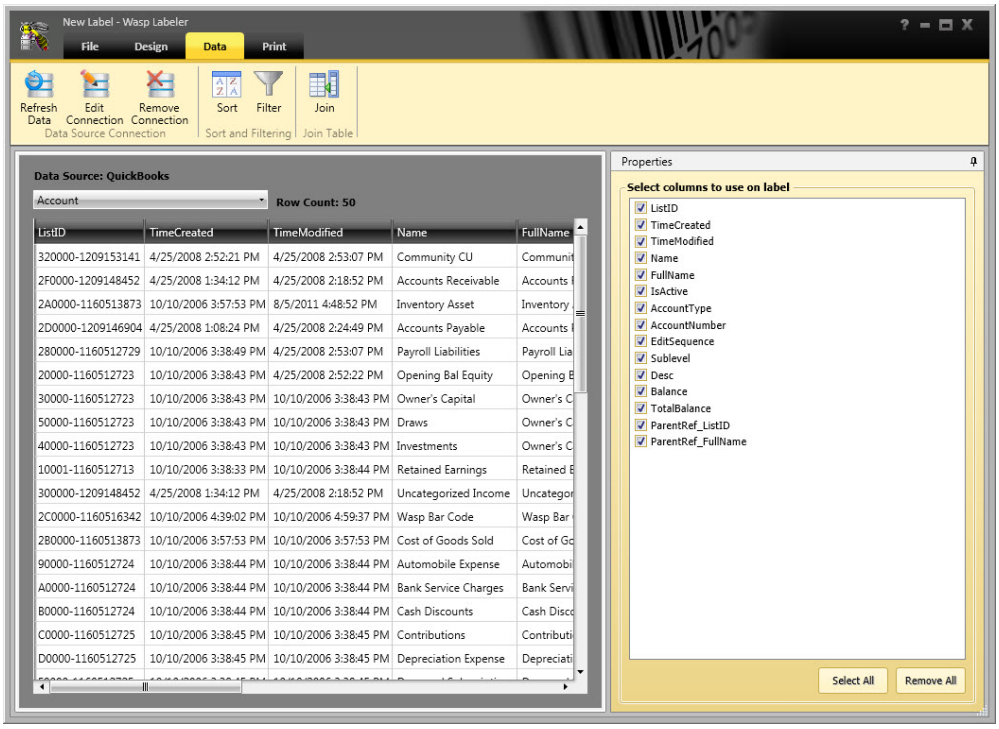
4. If you see a QuickBooks® screen similar to the one indicated in the **Connecting to** QuickBooks® message, select one of the following options, then click **OK**

   Yes, Prompt each time
   Yes, Whenever this QuickBooks® company file is open
   Yes, Always: allow even if QuickBooks® is not running

5. A screen will appear showing all data from QuickBooks®. You can set up a filter to limit the data you bring into your Labeler file.



6. The **Data** tab will populate with the data from the selected QuickBooks® file.



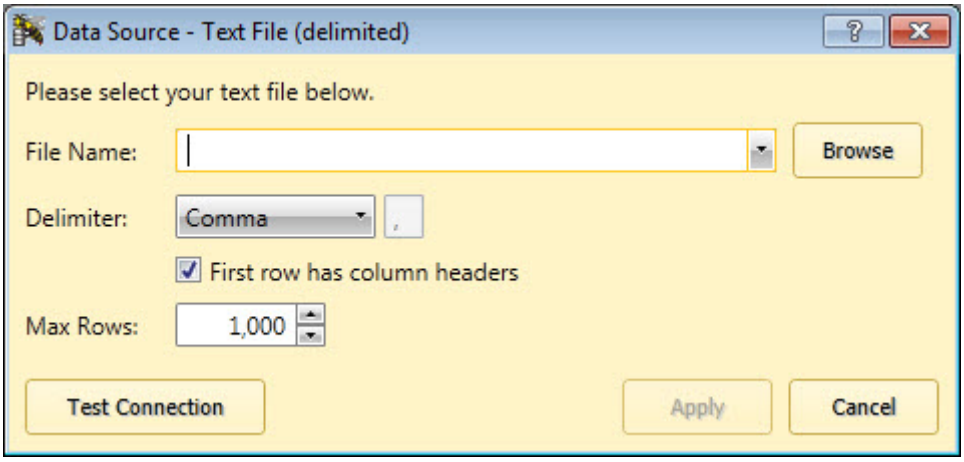
7. You can now perform the following functions:

   Edit the Connection
   Remove Connection
   Sort the Data
   Filter the Data
   Join two or more tables

4.8 Connecting to a Text File (delimited)

1. On the main **Data Source** tab click the **Text** option

2. The **Data Source - Text File (delimited)** screen appears:



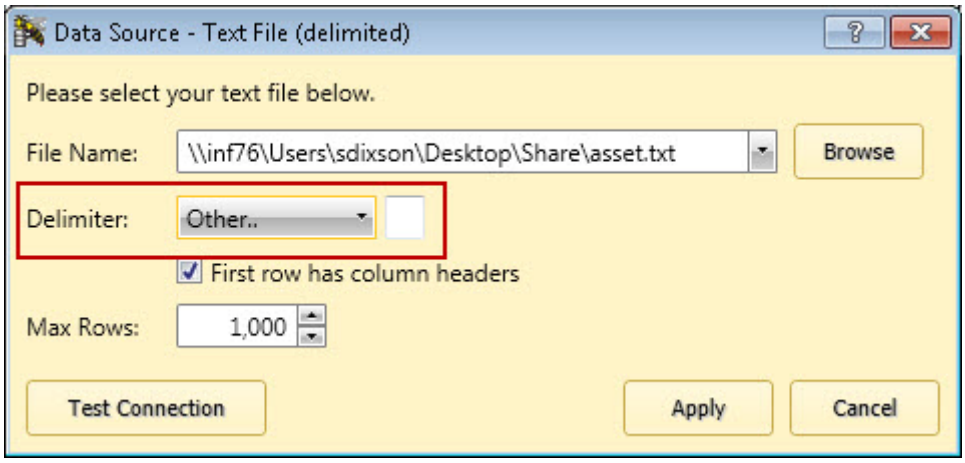
3. Enter the file name and location or click the **Browse** button to navigate to the file.

When you click **Browse**, a browser window will appear allowing you to navigate to your file. After you select your file and click **OK** on the browser window, the **Data Source - Text File (delimited)** screen will populate with the path and name of your data source in the **File Name** field.

4. Select the **Delimiter** from the drop down menu. Options are:

   Comma (default)
   Semicolon
   Tab
   Space
   Other..

   If you select **Other**, enter the delimiter in the text box to the right of the Delimiter field.

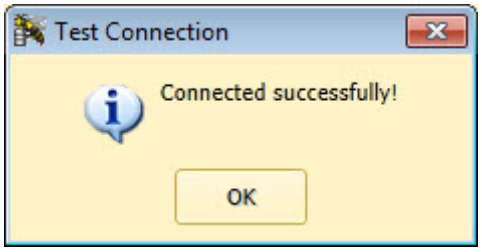


5. If the first row of your file contains column headers, make sure the **First Row is Column Headings** checkbox is selected.

6. The maximum rows included in your label defaults to 1,000. You can enter a smaller or larger number as needed in the **Max Rows** field.

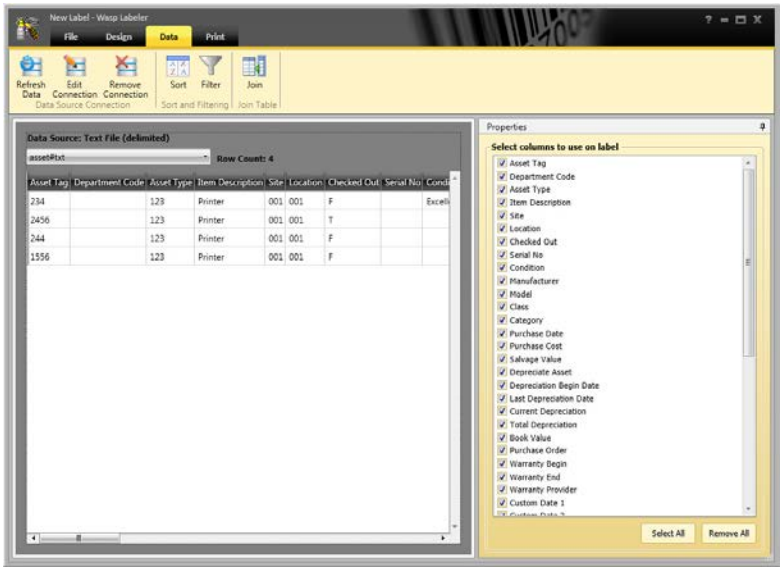
   Enter 0 (zero) to return all rows of data. Keep in mind that a very large number of rows may result in slower performance.

7. You can click the **Test Connection** button to make sure you are connected to the database. If a connection is established, the message shown below appears:



   Click **OK** on the **Test Connection** message to close it.

8. Click **Apply** to add the connected file to your Labeler project. The data contained in the selected file will appear on the **Data** tab as shown in the example below:



9. You can now perform the following functions:

Refresh the Data
Edit the Connection
Remove Connection
Sort the Data
Filter the Data
Join two or more tables

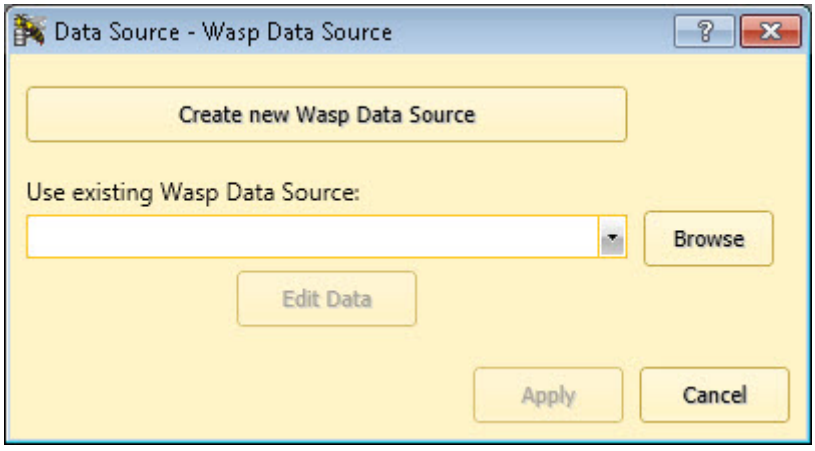
4.9 Creating a Wasp Labeler Data Source

Wasp Labeler provides the capability to creating a new data source from within the application. Labeler generates a Wasp Data File (extension .WDF) and provides the capability to create a single database table by entering the column and data.

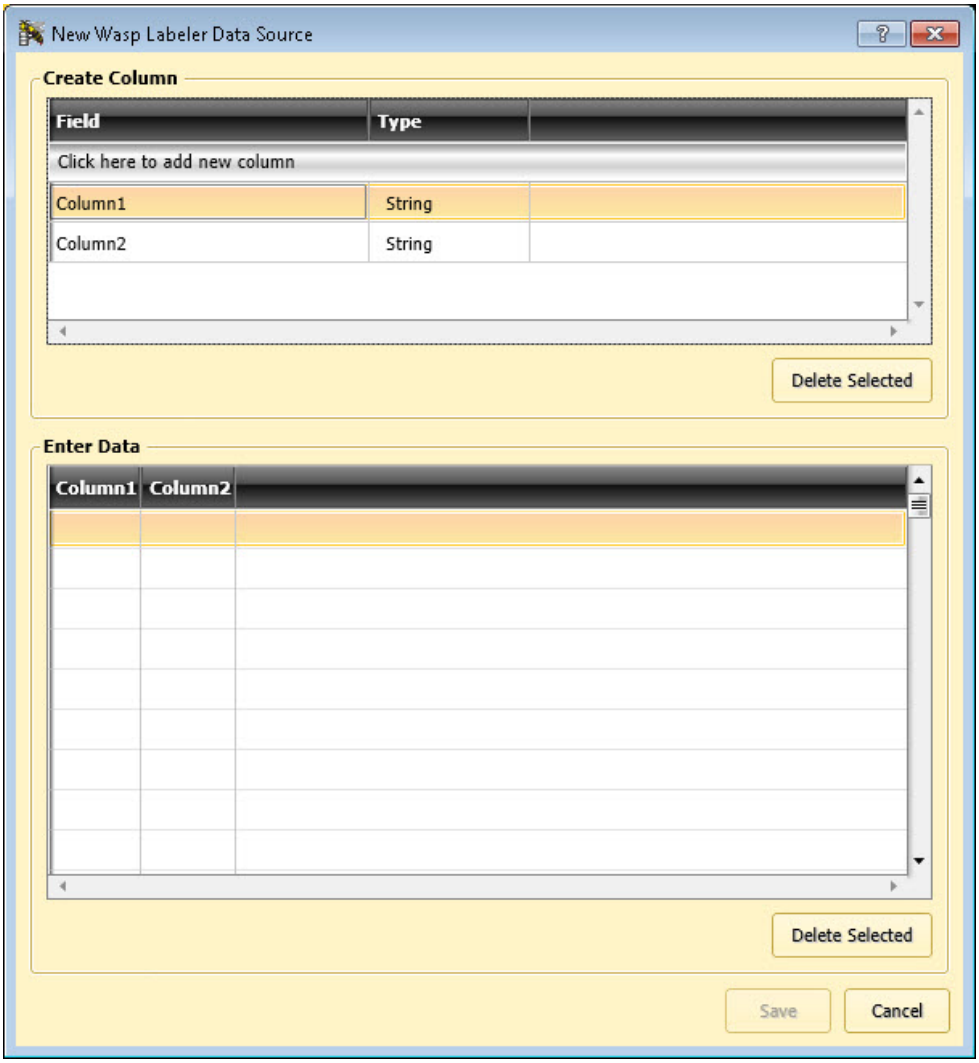
Use this option only when you want to create labels that will be composed of one or more variable fields for which you do not currently have an external data source.

1. On the main **Data** tab click the **Wasp Data** option.

2. The **Data Source - Wasp Data Source** screen appears:



3. Click **Create New Wasp Data Source**. The **New Wasp Labeler Data Source** screen appears.



4. Two sample columns appear in the **Create Column** section. Click in the **Column1** area and type in a new column header.

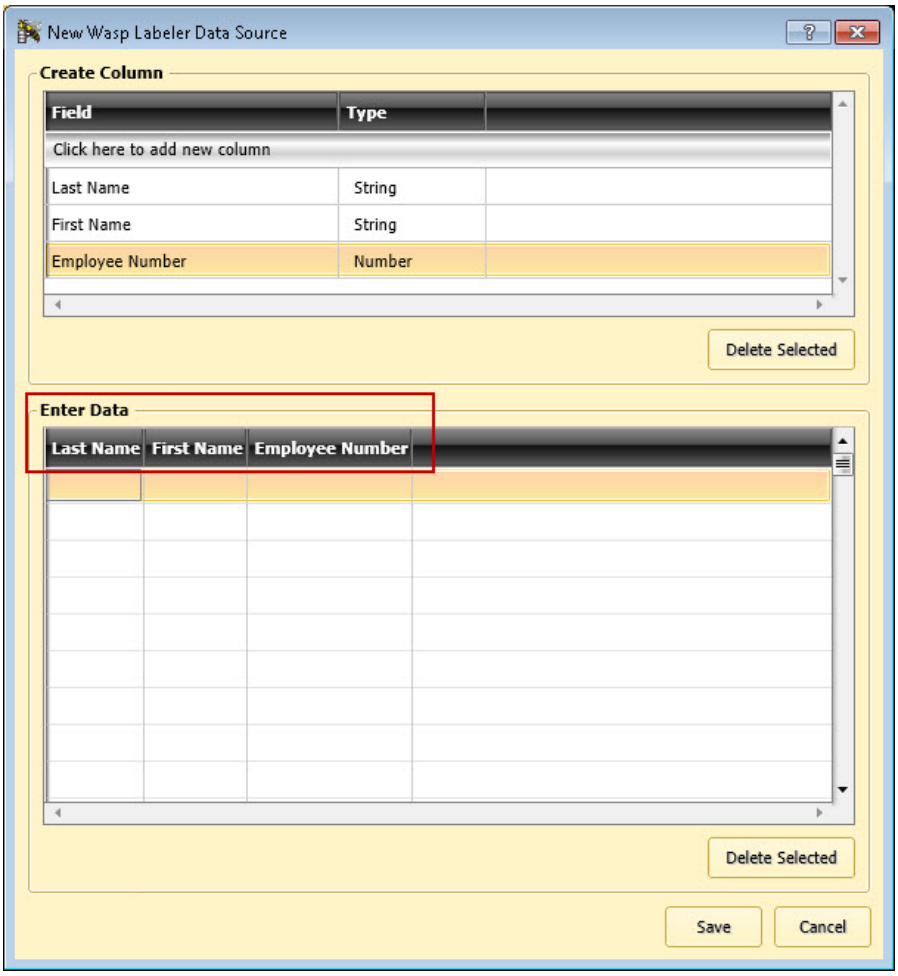
5. Press **TAB** or click in the **Type** field and select the type of data that will be contained in this column. Options are:

   String - This can be a combination of text and numbers.
   Date
   Number

6. Click in the **Column2** field and repeat steps 4 and 5.

7. When you are ready to add a new column, select **Click here to add new column**. A new **Column** and **Type** column will appear. Repeat steps 4 and 5.

8. After you have created your columns, you are ready to add data to them. Any columns you have created will appear as column headings in the **Enter Data** section as shown in the example below:



Click in a field and add data that corresponds to the column heading and type. You can tab from field to field to speed up data entry.

9. When you have completed entering data, click the **Save** button. A browser window appears. You can navigate to the location of your choice, rename your database and save it. The default Wasp Labeler Data Source name is DataSource1.WDF.

10. Your data will appear in the **Data** tab.

11. If you connected to the file from the main **Data Source** tab, you can now perform the following functions:

Refresh the Data
Edit the Connection
Remove Connection
Sort the Data
Filter the Data

4.9.1 Deleting Columns or Data From the Database:

Highlight the row(s) you want to delete, then click the **Delete Selected** button. Press the **CTRL + A** keys on your keyboard to select all rows. Select multiple rows by pressing **SHIFT + Click**.

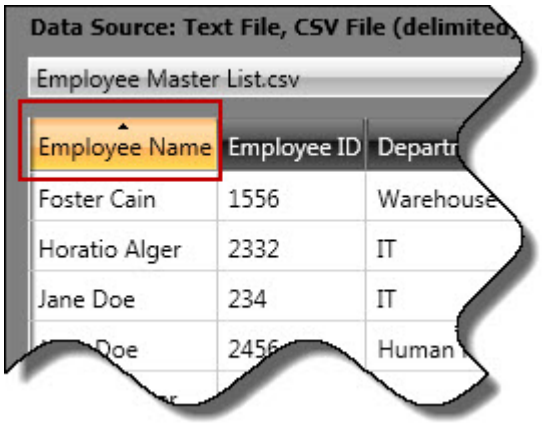
4.10 Sorting Data Source Content

After you have attached a data source to your project, you can sort the data on the **Data** tab. Sorting is a useful way to make sure your data prints in the order you want. For example, you might want to print mailing labels in zip code order or conference badges alphabetically by participant name.

There are two methods for sorting data:

4.10.1 Method 1: Sort Data Using Column Headers

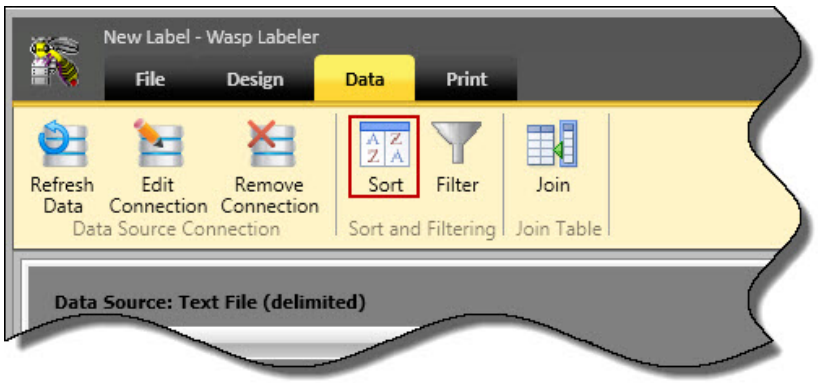
You can sort the data ascending or descending by clicking on the column heading in the **Data** tab. When you click the header an arrow appears indicating if it is sorted ascending (up arrow) or descending (down arrow). The first time you click a heading it will sort ascending. An example of columns with a sort arrow displayed on a header is shown below:



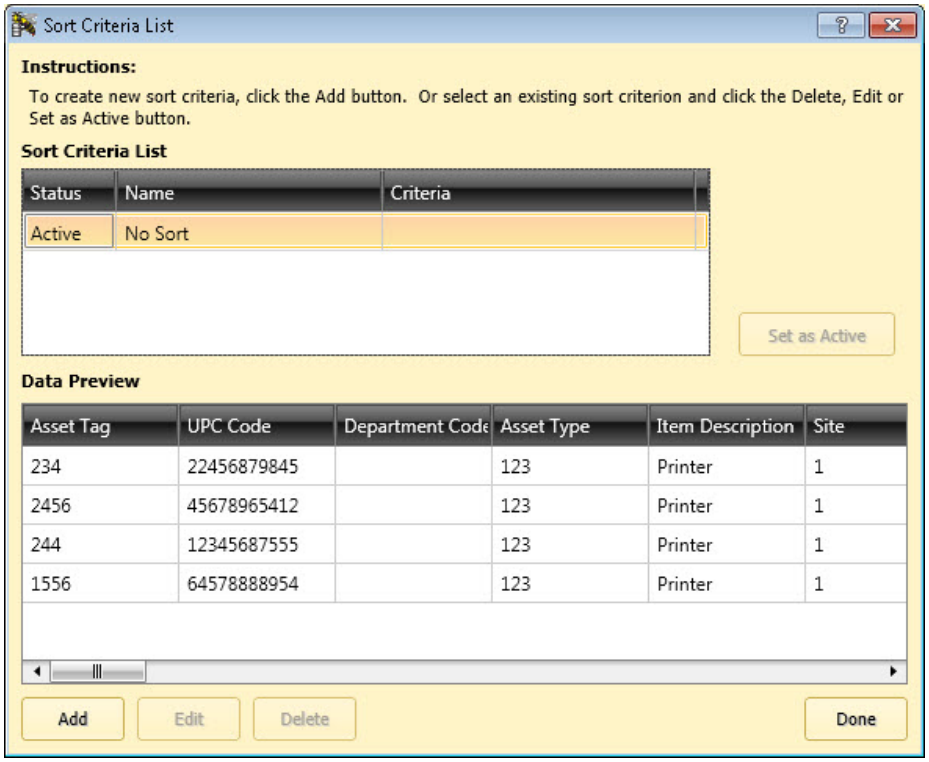
4.10.2 Method 2: Sort Data Using the Sort Button

Using the **Sort** button allows you to create and save multiple sort criteria. This is useful if you want to sort by multiple criteria. For example, you may want to sort alphabetically by Company, then alphabetically by employee name.

1. On the **Data** tab, select the **Sort** button on the toolbar.

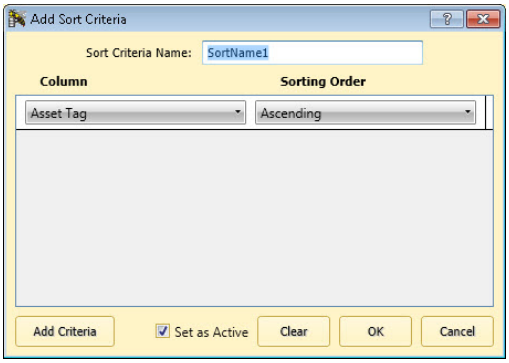


The **Sort Criteria List** screen appears:



The top of the screen displays all sort criteria you have already created along with their status (active or inactive). The bottom of the screen shows a preview of your data with one of the sort criterion applied. You can only have one criterion set as active at a time.

2. To add a new criterion select the **Add** button at the bottom of the **Sort Criteria List.** The **Add Sort Criteria** screen appears:

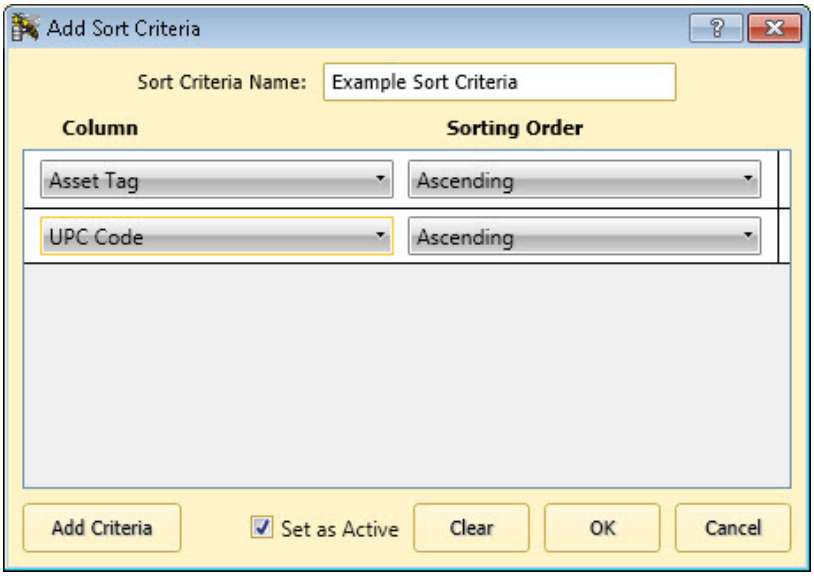


3. Enter the name of your new **Sort Criterion** in the **Sort Criteria Name** field.

4. The **Column** drop down menu lists all columns from the data source that you have selected to be included in your label project. Select the column you want to sort from the drop down menu.

5. Select **Ascending** or **Descending** from the **Sorting Order** drop down menu.

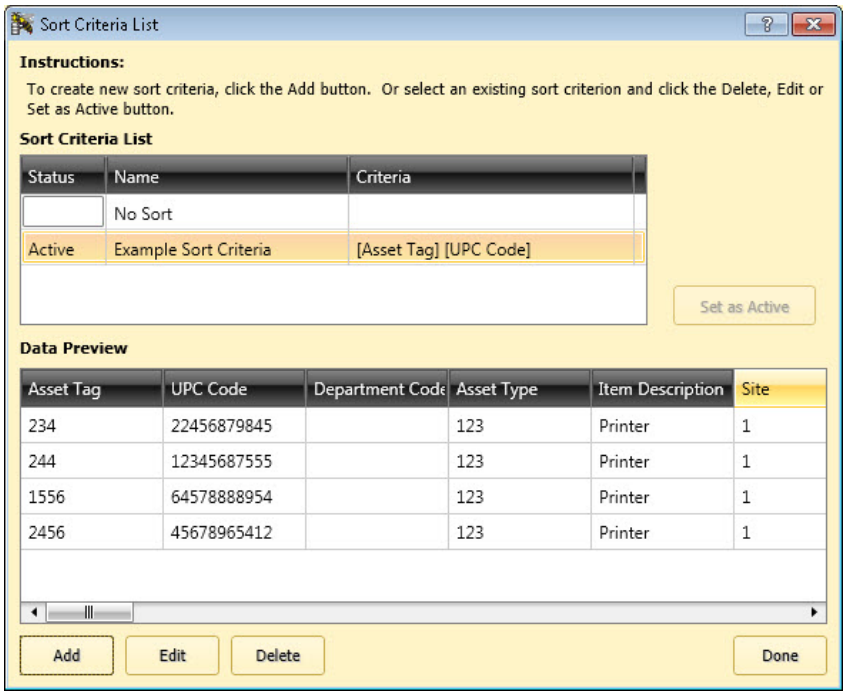
6. You can add additional criteria to by clicking the **Add Criteria** button. Now a new pair of **Column** and **Sorting Order** drop down menus appear.



7. Repeat steps 4 and 5. You can continue adding additional sort criteria as needed. In this example, we have created a list that will be sorted first by Asset Tag, then by UPC Code.

8. Check the **Set as Active** checkbox if you want the sort criteria you just created to be applied to your data.

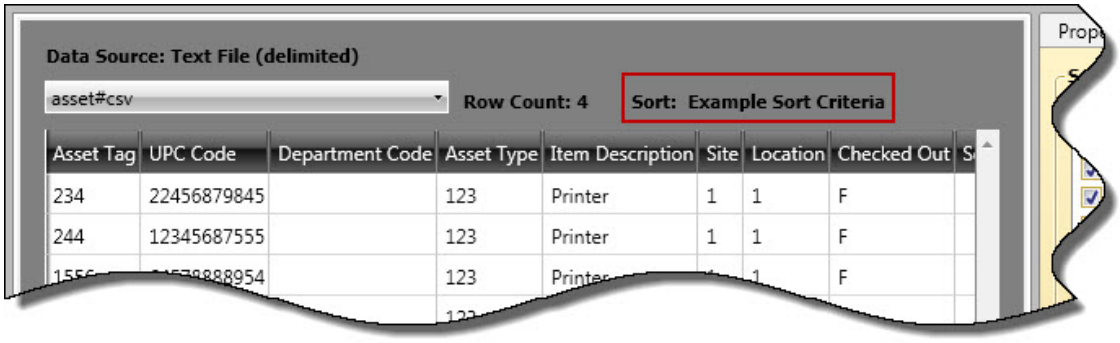
9. Click **OK** to save your new criteria. Click **Clear** to delete the criteria and start over. When you click **OK** the **Sort Criteria List** screen appears displaying your changes:



10. To change which sort criteria is currently active, highlight a listing, then click the **Set as Active** button.

11. Click **Don**e on the **Sort Criteria List** to return to the **Data Source** tab. Notice that if you have active sort criteria, your data will now be sorted according to the set parameters.

When you have an active sort applied to the data source contents, the name of the sort currently in use will appear in the contents preview window as shown below:

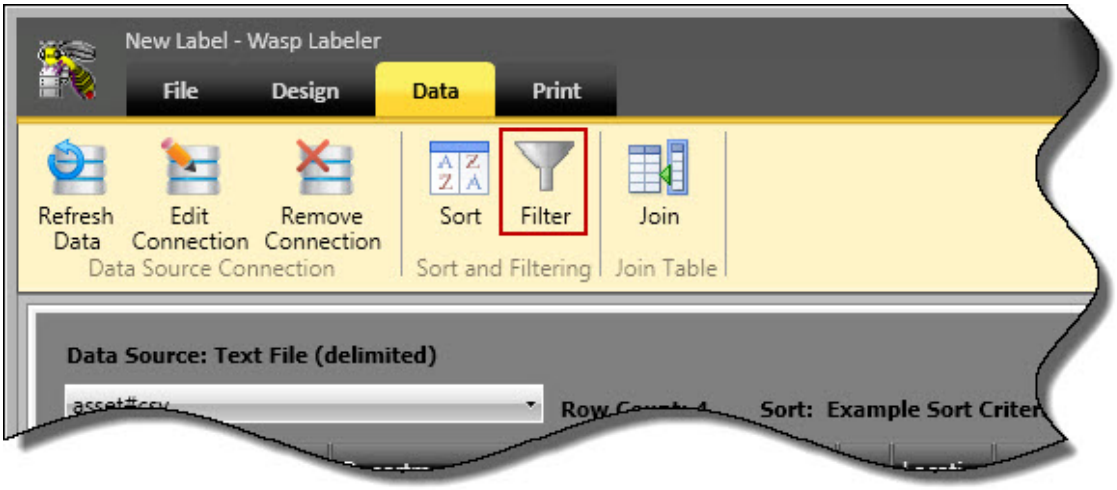


4.11 Filter the Data Source Content

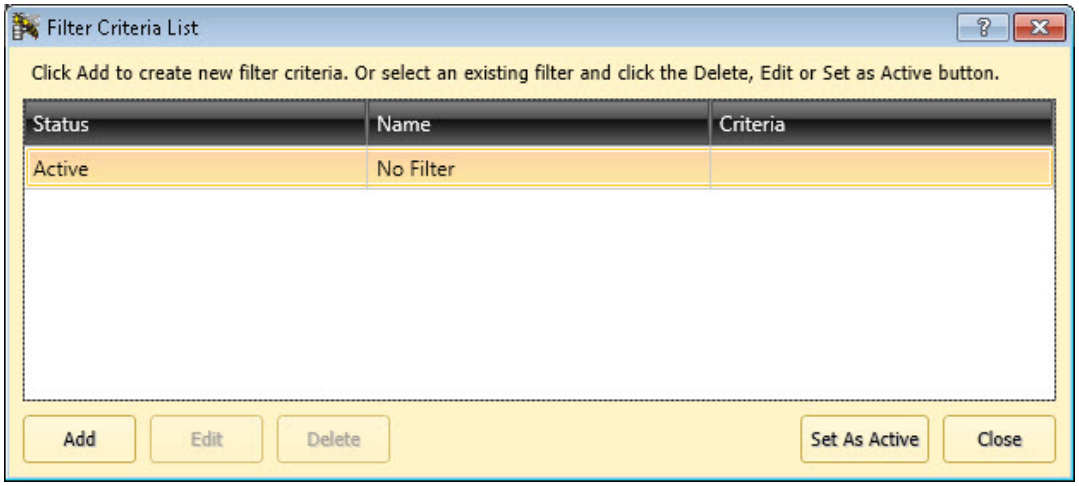
Filtering the data source content on the **Data tab** allows you to only the data that meets the criteria you specify. For example, if the data source contains a list of item numbers, descriptions, and quantity in stock, you can display only the item numbers that are out of stock (QTY=0).

4.11.1 Creating a Filter

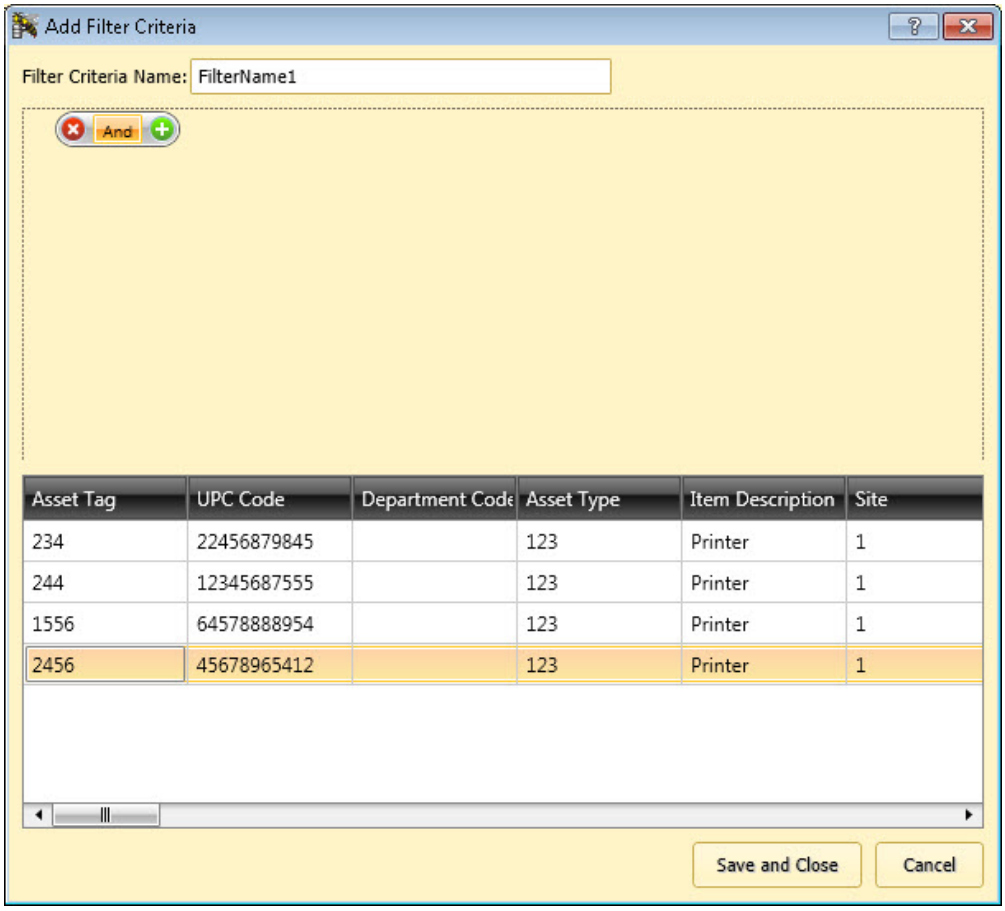
1. After you have selected a data source on the **Data** tab, click the **Filter** button on the toolbar.



The **Filter Criteria List** screen appears:

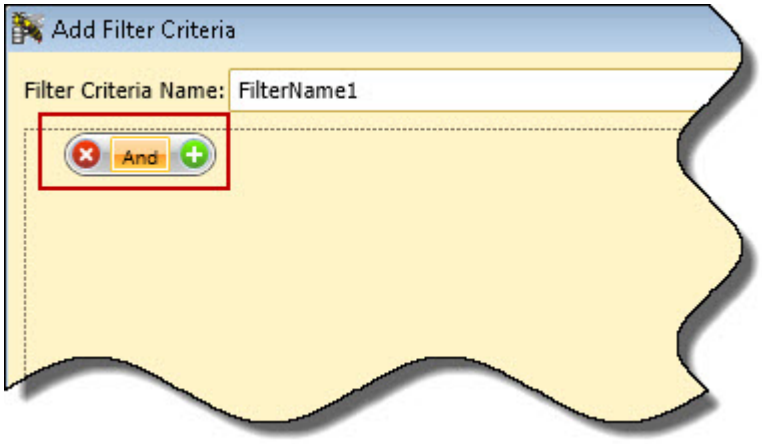


2. Click **Add** to create a new filter for the selected data source. The **Filter Criteria** screen appears:

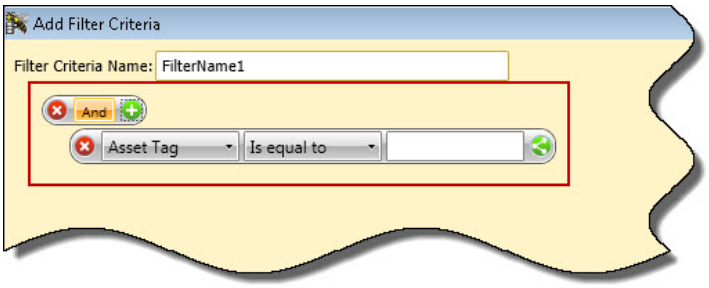


3. Enter a name for the filter in the **Filter Criteria Name** field.

   An operator selection bar appears at the top of the screen. Click in the middle of the bar to toggle between the **And** and **Or** operators. Leave the first filter as **And**.



4. Click the green + sign to add a criterion to this filter. A new criterion bar appears:



5. The first drop down menu contains the columns from your data source. Select a column from the first drop down.

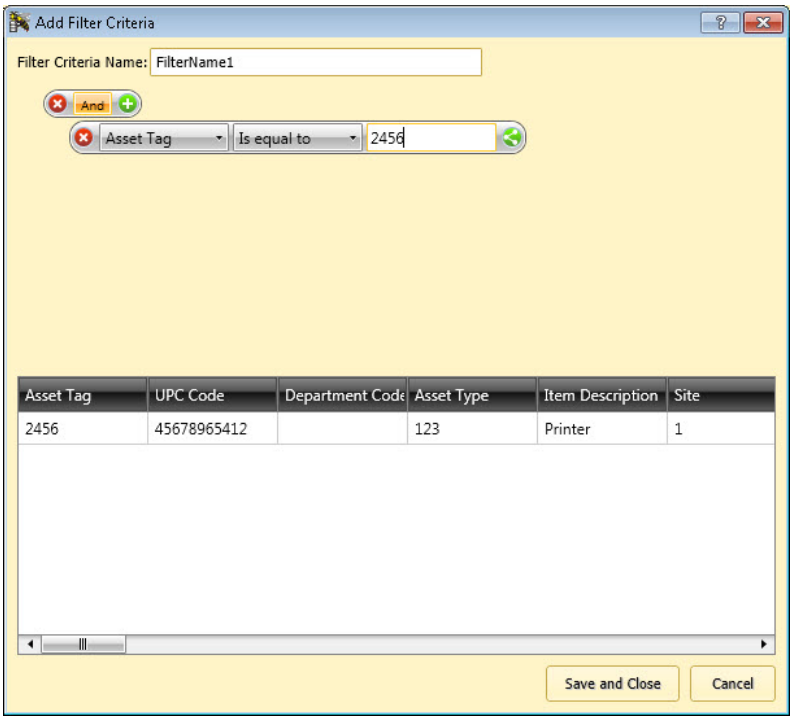
6. Select a parameter from the second drop down.

   Options are:

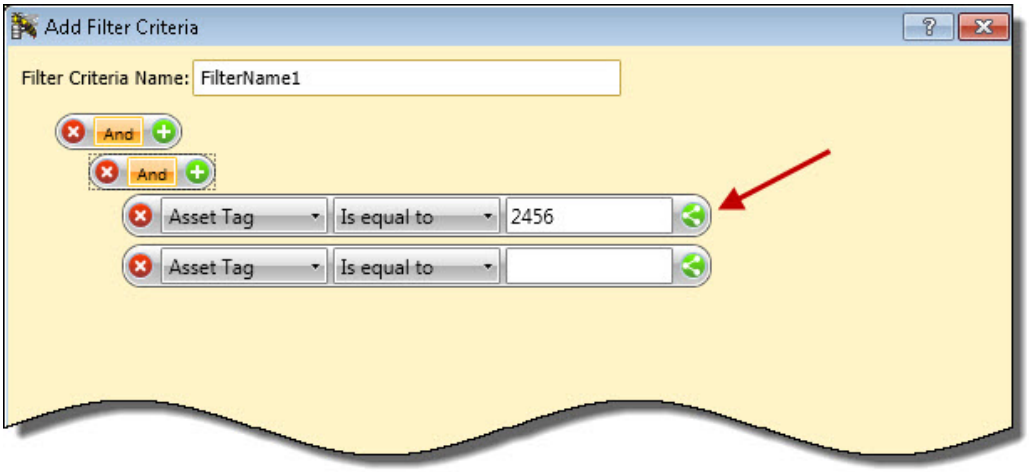
   - **Is equal to**
   - **Is not equal to**
   - **Is less than**
   - **Is less than or equal to**
   - **Is greater than or equal to**
   - **Is greater than**

7. Enter a value in the last field.

   Example: In the screen shot below the entered parameters are Asset Tag is equal to 2456. This means that only rows in which the column Asset Tag equals the value 2456 will appear in the results. The preview window displays what rows would be returned for given parameters.



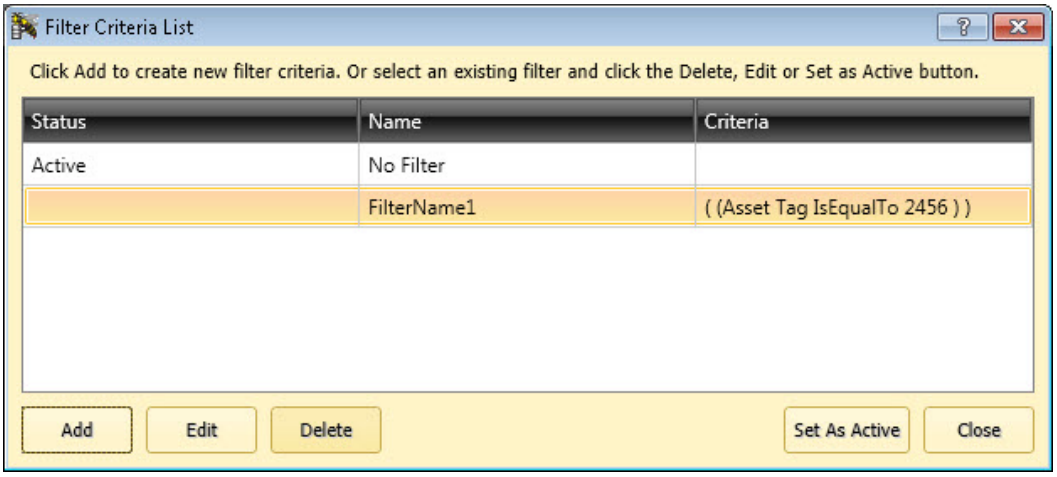
You can add additional parameters as needed by clicking the green join icon.



As you add criteria, the preview window will continue to update to display what your results will look like with the filter applied.

8. Click **Save and Close** to save the new filter and return to the **Filter Criteria List**.

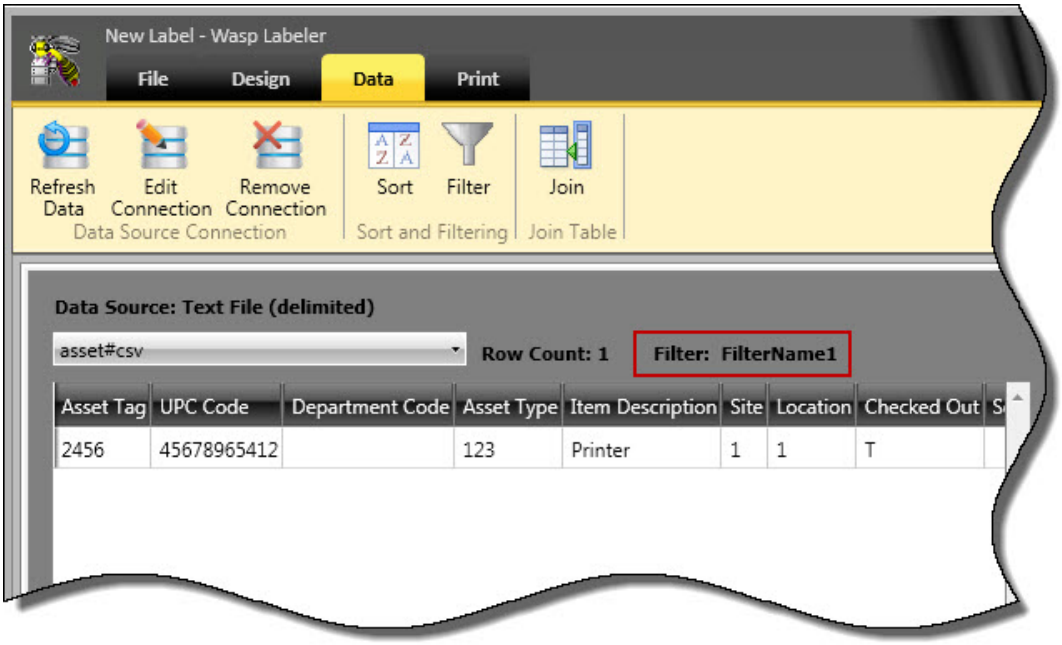
   The new filter will appear on the **Filter Criteria List**.



9. Highlight the desired filter and click the **Set as Active** button to apply it to the database results. The **Status** will update to **Active**.

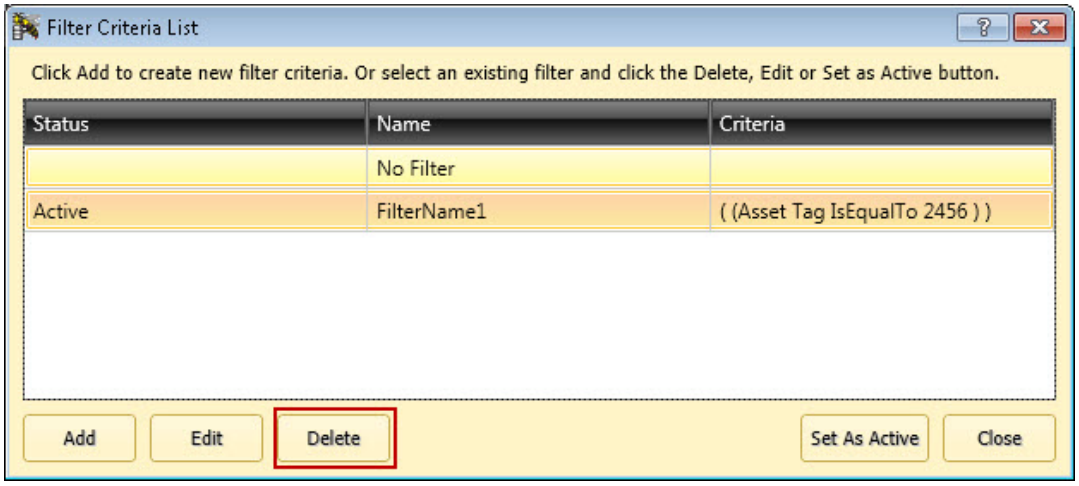
   Notice that the database results on the **Data Source** tab update to the highlighted filter. This is to provide you with a preview of the filter results. The filter is not active until you click the **Set as Active** button.

When you have an active filter applied to the data source contents, the name of the filter currently in use will appear in the contents preview window as shown below:



4.11.2 Deleting a Filter

1. Click the **Filter** icon on the **Data** tab toolbar. The **Filter Criteria List** appears.
2. Highlight the filter you want to delete, then click the **Delete** button. The following warning message appears:



3. Click **Yes** on the warning message to delete the filter.

4.12 Joining Tables

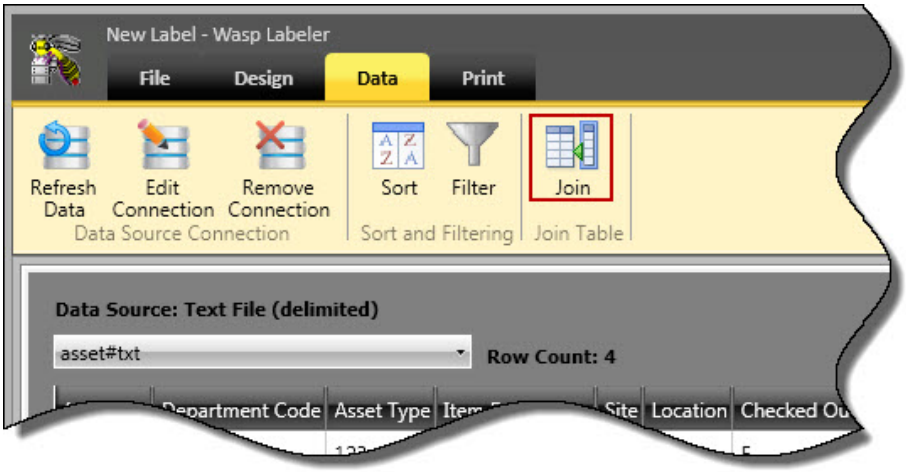
After selecting a data source on the **Data Source** tab, one or more tables (or spreadsheets) can be selected for use with the label you are designing. While you can't select more than one data source at a time for your label, you *can* select more than one table within a single data source. In order to use data from more than one table, you will need to join the tables by creating a link between them. To join tables you will link two columns with common data, then select which columns from each table you want to include on your label.

Example - When to Use the Join Tables Function

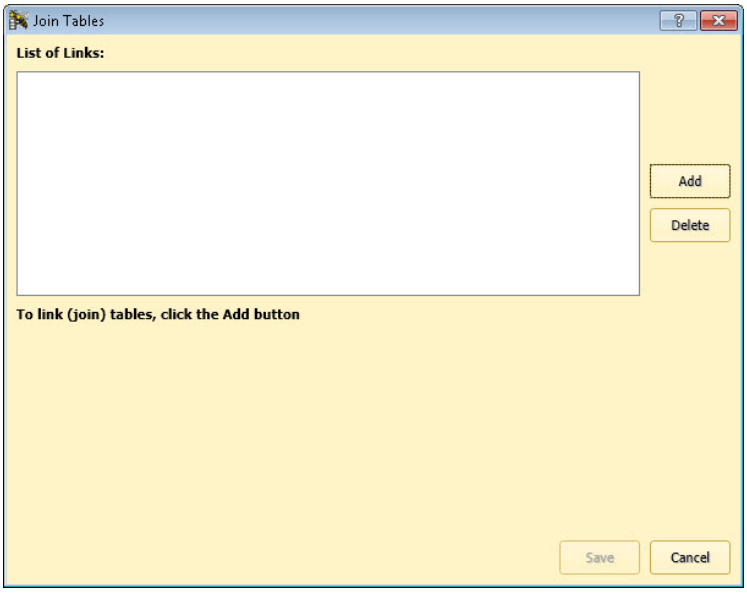
> Joining tables is useful if, for example, you are creating an employee badge and want to include the employee and department. You might have two spreadsheets, one containing the employee name and department ID code and another containing department ID codes and the corresponding department name. You can combine the two tables by creating a link between the department ID code column in the first spreadsheet with the department ID code in the second spreadsheet. Then you can select to include only the employee name from the first table and department name from the second table on your labels.

4.12.1 Steps to Join Tables

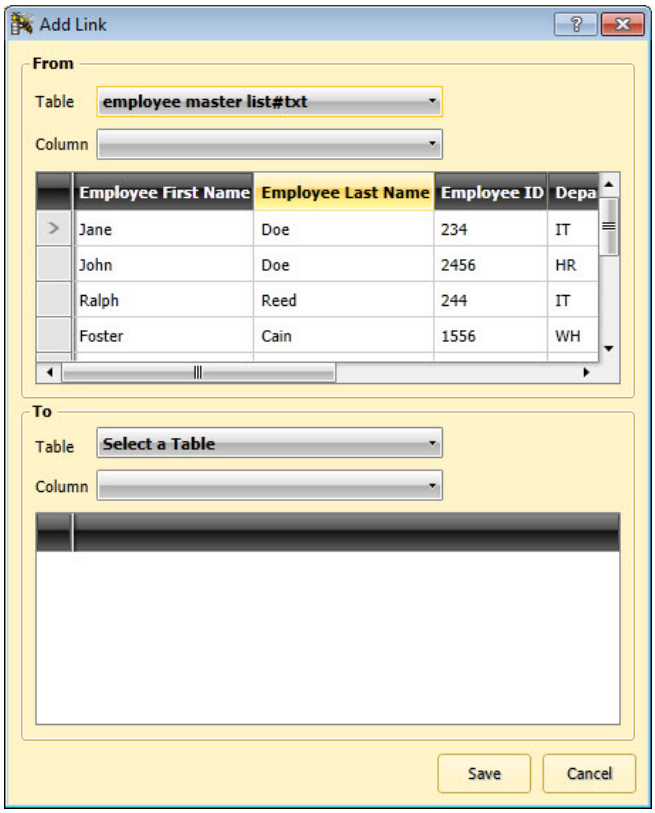
1. After selecting a data source on the **Data** tab, click the **Join** button.



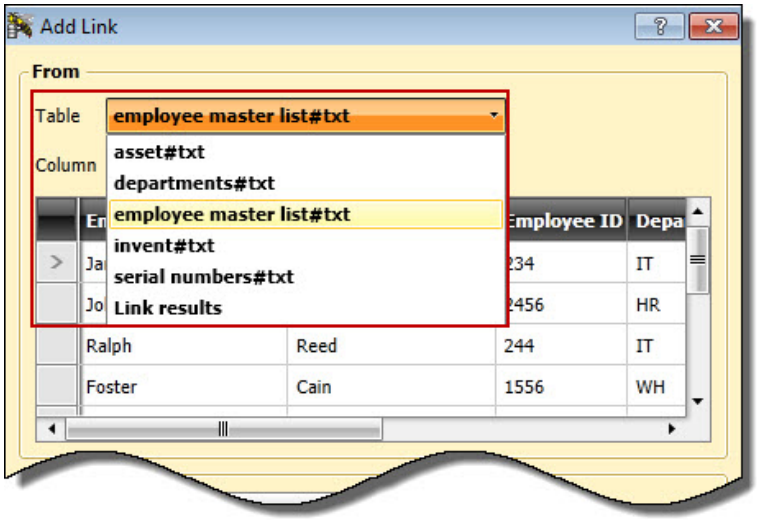
The **Join Tables** screen appears:



2. On the **Join Tables** screen, click the **Add** button. The **Add Link** screen appears:



3. On the **Add Link** screen select the table, spreadsheet, .csv or .txt file from which you want to create a link in the **From Table** drop down menu. All available tables, spreadsheets, etc. from the selected data source will appear here.

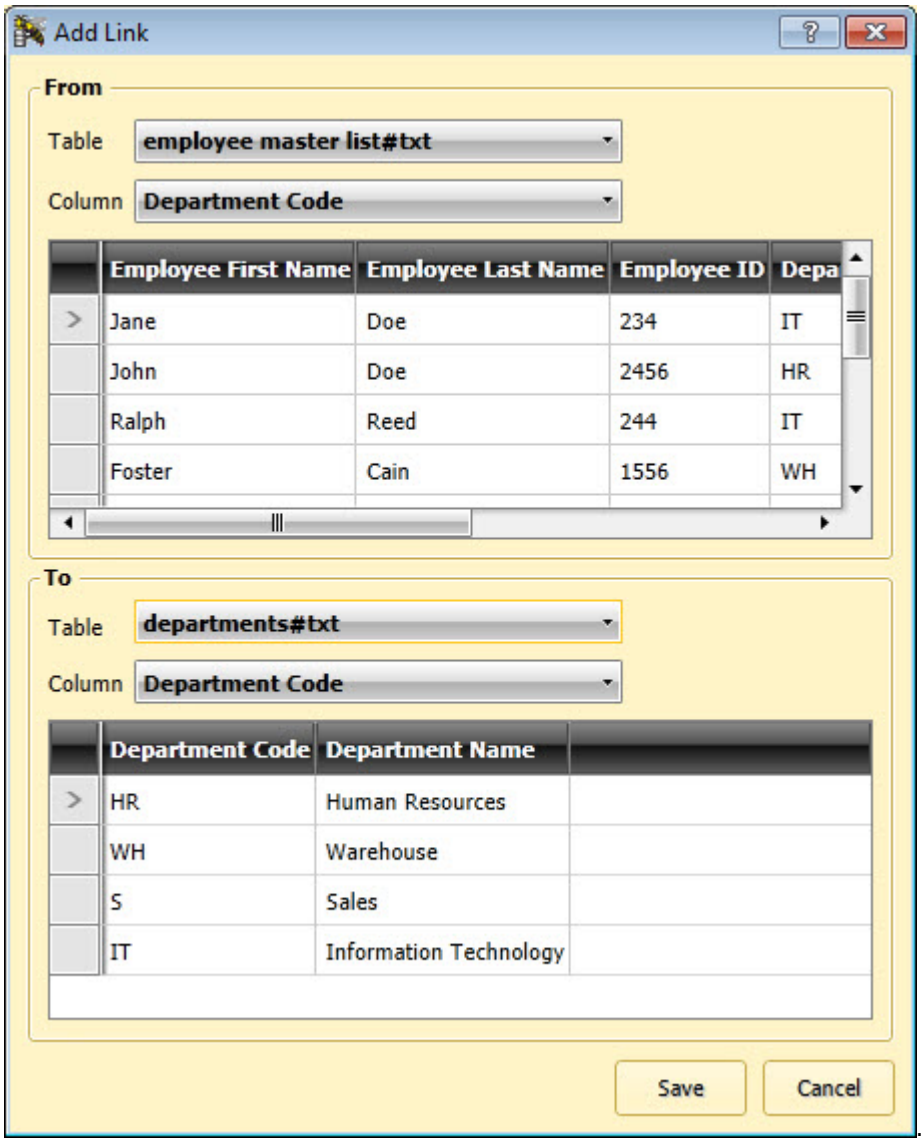


A list of columns in the selected table, spreadsheet, etc. will appear in the top preview pane.

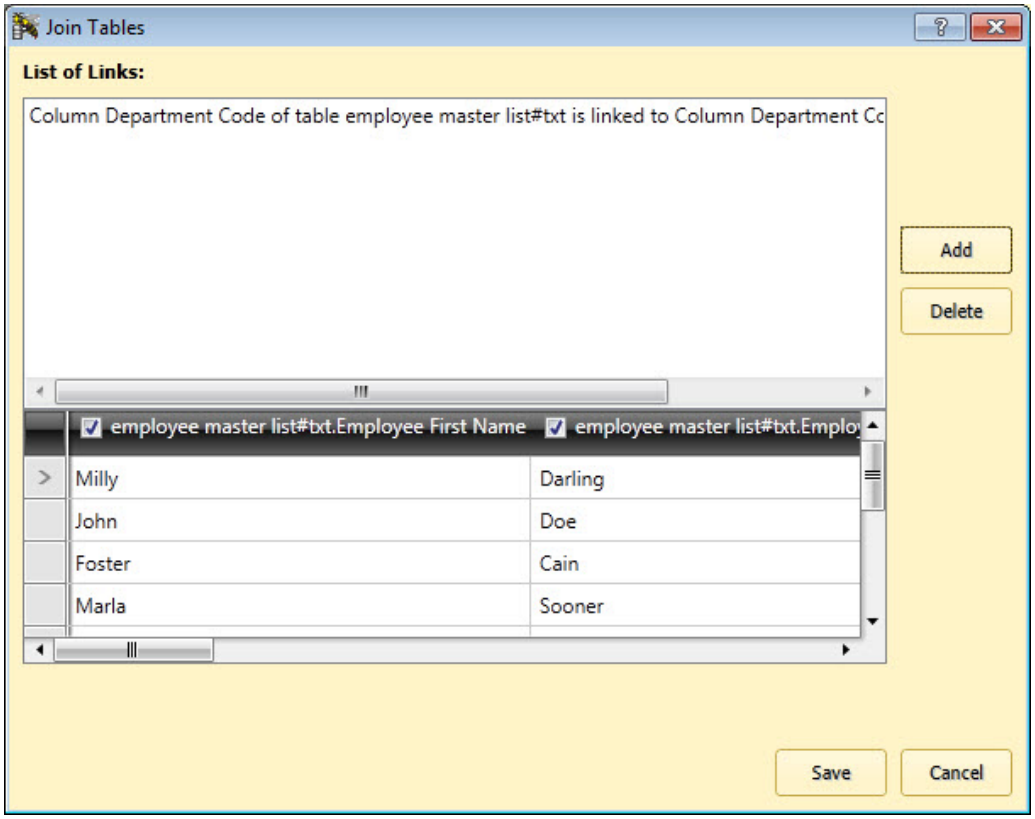
4. Select the column from which you want to create a link using the **From Column** drop down menu.

5. Now select the table, spreadsheet, etc. to which you want to link using the **To Table** drop down menu.

6. Select the column to which you want to create a link using the **To Column** drop down menu. A list of columns in the selected table, spreadsheet, etc. will appear in the bottom preview pane

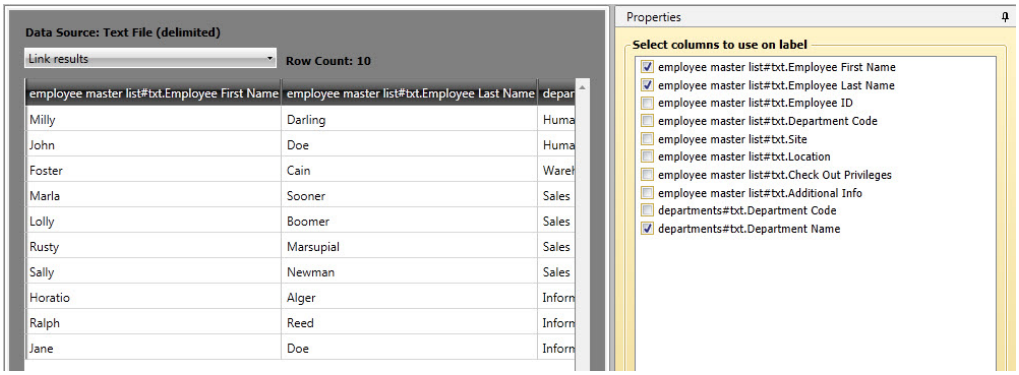


7. Click the **Save** button to create your link. Your link will now appear in the **List of Links** window on the **Join Tables** screen.



8. Click **Save** on the **Join Tables** screen to return to the **Data** tab.

9. All columns from both tables, spreadsheets, etc. will appear in the **Properties > Select Columns to Use on Label** window. Select those columns you want to use on your label and deselect those you do not want to use on your label. The preview window will update with your column selections.

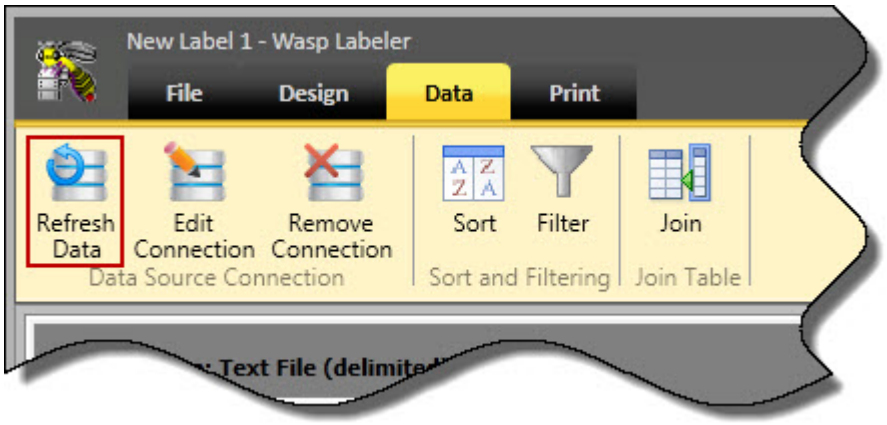


4.13 Refreshing Data Source Information

When you establish a connection to a data source, the data contained within the selected file is added to your Wasp Labeler project and displayed on the **Data Source** tab. While the path/connection information is retained, a constant, live connection to the file is not maintained, meaning that changes made within the source file after you create the Labeler connection will not be reflected in the Labeler project. To add new or edited information from the source file, use the **Refresh Data** function. This function is also useful if you have created sorts and filters and want to make sure they have been applied to the data contained in Labeler. Each time you click **Refresh Data**, Labeler will pull data from the data source using any filters and sorts you have created (except in the case of QuickBooks® connections - see note below).

Note: QuickBooks® users should be aware that clicking **Refresh** applies filters and sorts to the data that is already contained in the Labeler project. New/edited data is not pulled from the QuickBooks® source file. To pull new or edited data from the QuickBooks® source file, you will need to use the **Edit Connection** function.

To update the data contained on the **Data Source** tab, click the **Refresh Data** button on the toolbar.



Labeler will establish a connection using the same parameters you initially entered. You will not need to reenter a path or other connection information. All data contained in the source file that meets any sorts/filters you have created in Labeler will be returned.

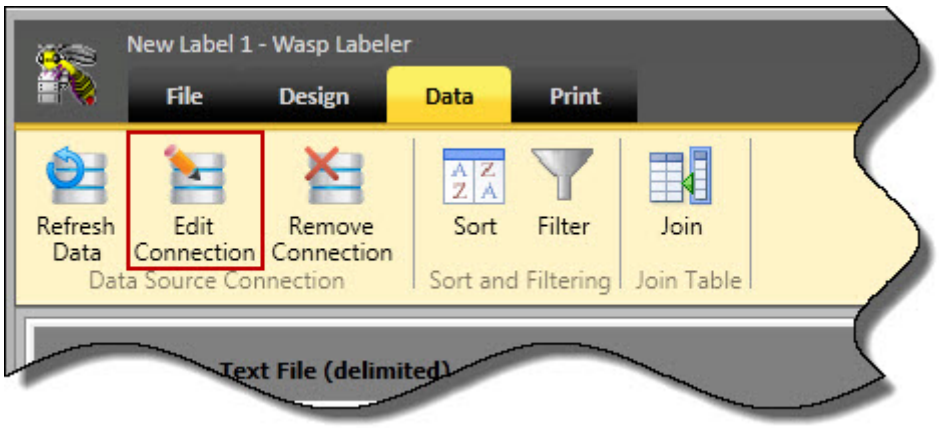
4.14 Editing the Data Source Connection

The **Edit Data Source Connection** allows you to change from one external data source to another, as long as they are the same time. For example, if you are connected to an Excel file, but want to change to a different Excel file, you can use the **Edit** function to browse to the new file. Keep in mind that any filters or sorts you have created for your existing external data source will be deleted. You can also use this feature if you move the external data source to a new location.

For QuickBooks® users, you can use the **Edit** function to pull new/edited data from the existing QuickBooks® file.

If you want to switch to an entirely different type of external data source, use the **Remove** function to delete the existing data from your project, then create a new connection.

To edit the connection to the external data source, click the **Refresh Data** button on the **Data Source Tab** toolbar.



The **Connection** screen specific to the type of file you are currently connected to will appear. Follow the steps you used to connect to that data type to establish a connection with a different file of the same time.

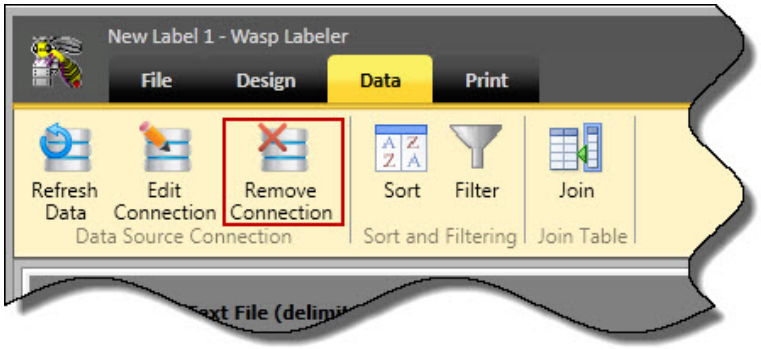
CSV File
Access Database
Excel File
Microsoft SQL Server
ODBS Compliant Data Source
QuickBooks®
Text File
Wasp Labeler Data Source

4.15 Removing the Data Source Connection

To completely break a connection with a data source and remove the data source's information from your project, use the **Remove Connection** function. You will use this function if you want to delete the data source information and change your label to a static label (that does not use an external data source at all) or if you want to change to a different external data source type.

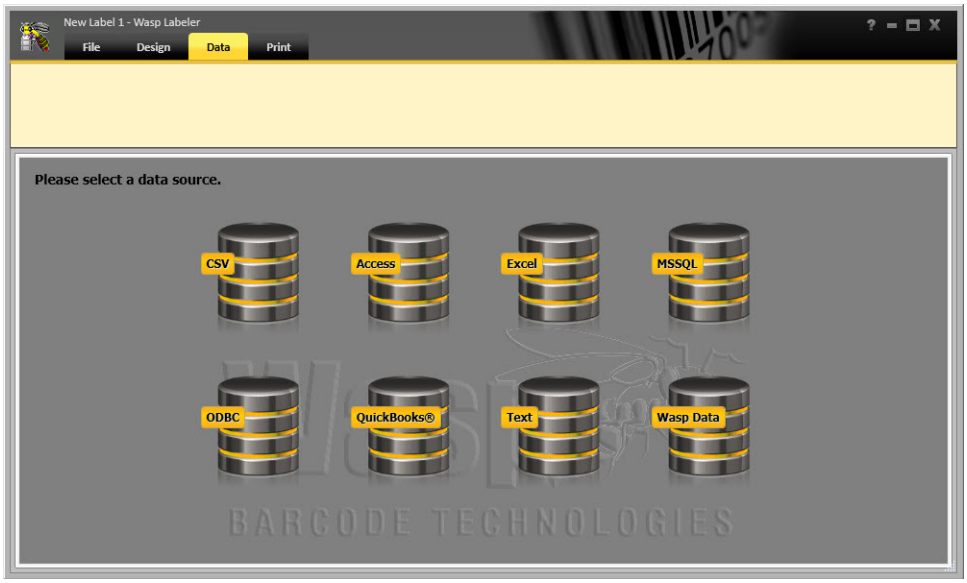
Note: If you want to change to a data source within the same type, CSV to CSV or MSSQL to MSSQL, for example, you will use the **Edit Connection** function.

1. On the **Data Source** tab, click the **Remove Connection** button. The warning message shown below appears:



2. Click **Yes** to continuing removing the connection. All **Joins**, **Filters** and **Sorts** you have created for the current data source will be removed and the data source connection parameters (the path to a file/SQL settings, etc.) will be deleted from the project.

   The **Data** tab will appear as shown below after the connection is removed.



Chapter 5 - Print Tab

5.1 Print Tab Overview

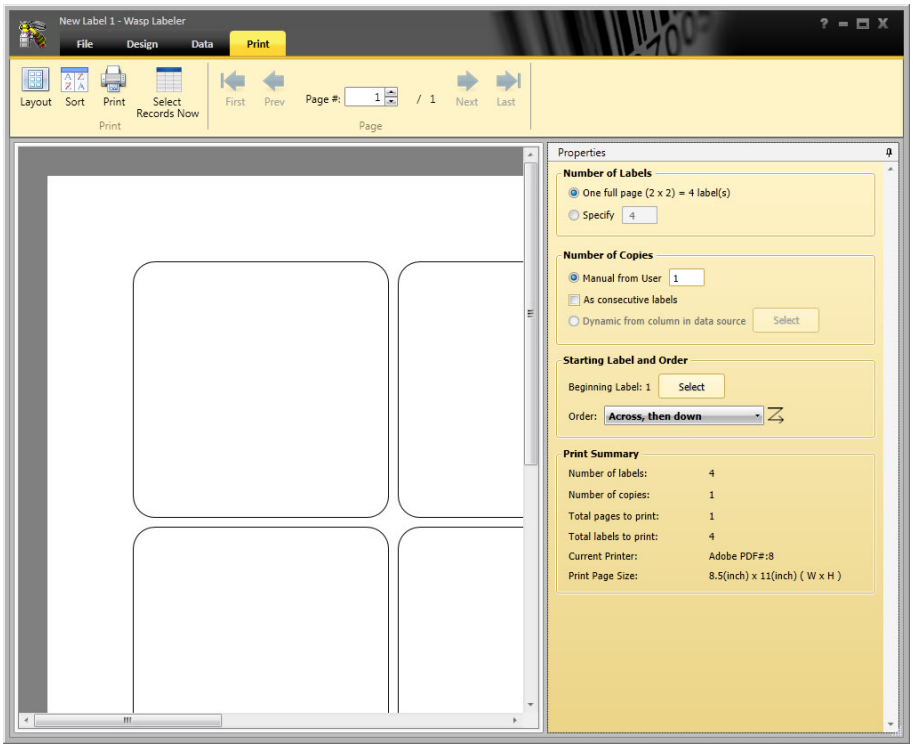
In this topic:

[Print Toolbar Function Descriptions](#)
Print Tab Properties Box
[Number of Copies](#)
[Number of Labels](#)
[Starting Label and Order](#)
[Data Source](#)
Prompt at Print Time Function

The **Print** tab provides a preview of how your printed labels will look. From the **Print** tab you can modify the **Page Layout,** select specific records from the data source to print, sort and filter which labels to print and enter the number of copies to print for each label.

The **Print** tab consists of a toolbar containing function icons, a preview window that displays how your labels will look when printed and a **Properties** box containing print options.

If your labels consist of multiple pages, you can use the navigation buttons on the toolbar to scroll through the various pages. You can manually enter a page number, or click **First**, **Prev**, **Next** or **Last** to scroll.



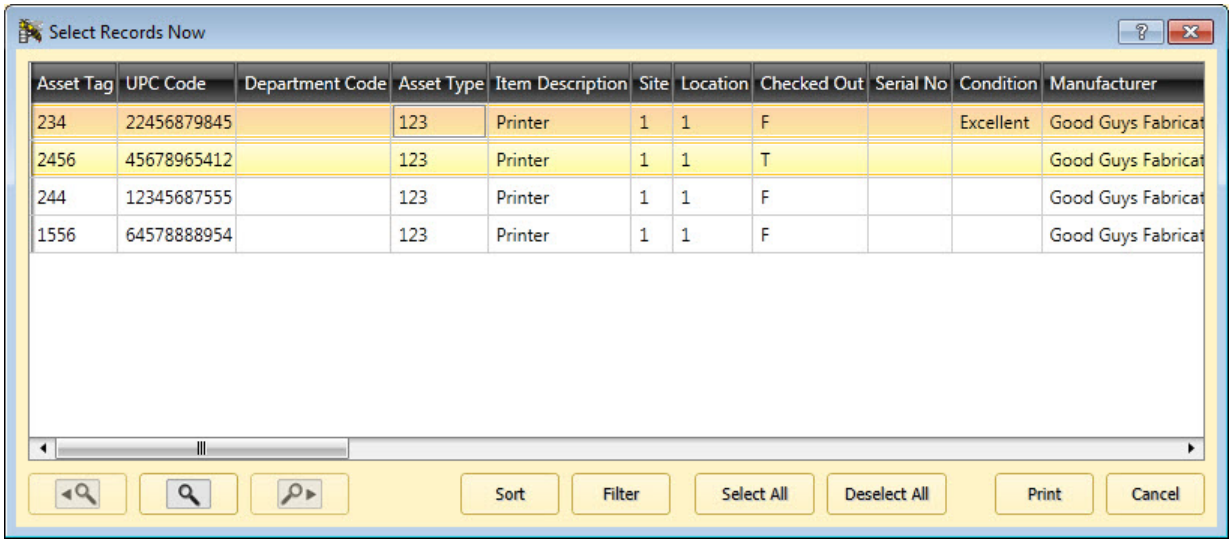
5.1.1 Print Toolbar Function Descriptions

Layout (Page Setup)- The **Layout** icon accesses the **Page Setup** screen where you can choose the label type/size.

Sort - Sort accesses the **Sort Criteria List** where you can create a new sort. Keep in mind that when the **Sort** function is accessed from the **Print** tab, any sort criteria already created and set as active on the **Data Source** tab will already be applied to the data.

Print - The **Print** icon accesses the standard **Windows Print** screen where you can select a printer and print your labels.

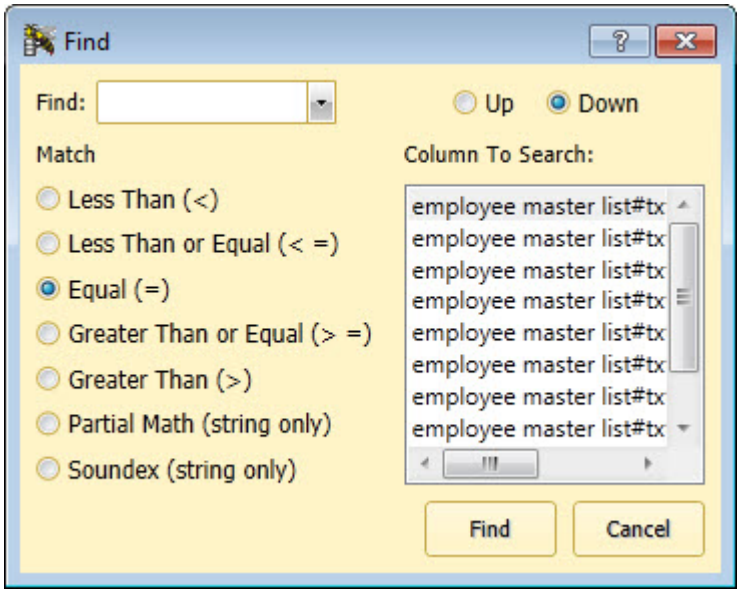
Select Records Now - Click the **Select Records Now** icon to select records to print.



You can **CTRL + Click** on records to select multiple, non-adjacent records, or **SHIFT + Click** to select multiple, adjacent records. You can also:

- click **Sort to access the Sort Criteria screen** and apply an existing sort or create new sort criteria to the chosen records,
- click **Filter to access the Filter Criteria screen** and apply an existing filter or create a new filter to the chosen records.
- select a record(s) and click **Print** to print directly from the **Select Records Now** screen. Any filters put on the data, other than those created from the **Select Records Now** screen, will be ignored.

The left **Magnifying Glass** icon takes you to the previous search entry and the right **Magnifying Glass** icon takes you to the next search entry. Click the center **Magnifying Glass** button to access the **Find** screen (shown below):



The **Find** screen allows you to enter parameters to search for specific data. Enter the text or number for which you want to search in the **Find** text box, then select a controller and the column in which you want to search. For example, here we have entered Payroll Liabilities in the **Find** text box, selected the **Equal (=)** controller and the **Name** column. This means Labeler will look for any text that equals Payroll Liabilities in the **Name** column.

5.1.2 Print Tab Properties Box - Number of Labels

The **Number of Labels** section allows you to select how many unique labels will be printed. This should not be confused with copies of labels. The **Number of Labels** section controls the number of physical, unique labels you want printed. Your options are:

- **One Full Page** - The number of labels printed using this option will vary depending on the label type you selected on the **Page Setup** screen. For example, here we have selected a page that contains 2 labels across and 2 labels down (2 x 2). This means that 4 labels will print if **One full page** is selected.

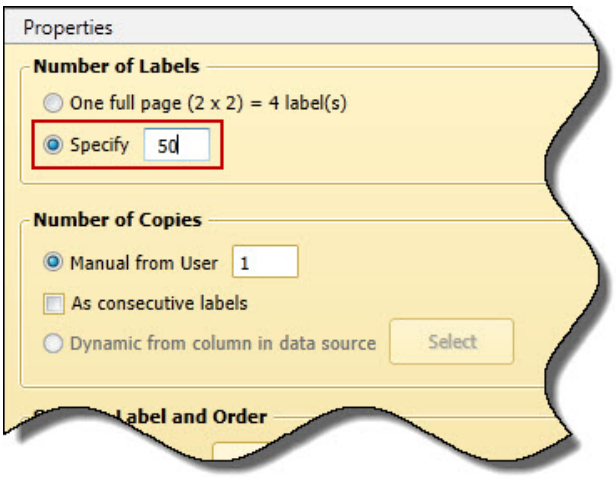
  If you are using an external data source, 4 labels for each record in the data source that you have selected to print will print if **One full page** is selected.

- **Specify** - Enter the number of labels for each record you want to print in the text box. In the example below a value of 10 is entered. This means that 10 labels for each record in your data source (if you are using one) will be printed.

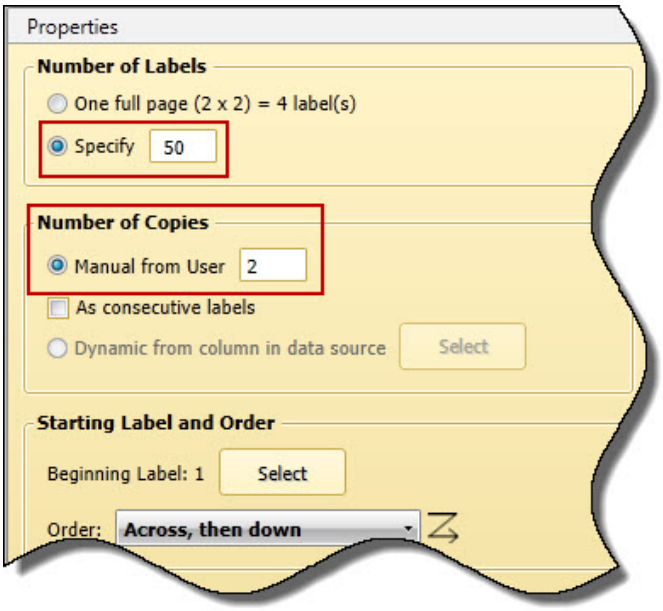
  Enter 1 in the Specify field if you want one label for each record in the data source to print.

Examples - Specifying the Number of Labels and Copies

Example 1: A label is setup with **Numeric Serialization** to produce a series of labels (1 through 500). If you enter 50 in the **Specify** box, the first fifty serialized labels will be printed.



If you enter 50 in the **Number of Labels - Specify** box and 2 in the **Number of Copies - Manual from User** box, 2 copies each of the first 50 serialized labels will be printed, resulting in 100 physical labels.



Example 2: The label is pulling data from an external data source. If you have 3 records in the data source and you enter 5 in the **Number of Labels - Specify** box, you will get 15 labels. 3 records x 5 labels each = 15 labels. Now if you also enter 2 in the **Number of Copies - Manual from User** box, you will end up with 30 labels printing. 3 records x 5 labels each = 15 x 2 copies = 30 labels.

This is especially useful if you are **creating enumerated labels with serial numbers**. If you have multiple boxes of the same item, and each item has a unique serial number, you can print labels that specify 1 of N with N being the number of boxes.

Example 3: If you are using an external data source and want one label for each record in your data source, enter 1 in the **Number of Labels - Specify** box.

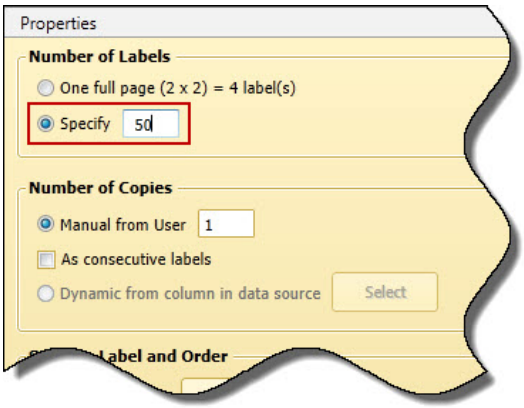
5.1.2 Print Tab Properties Box - Number of Copies

The **Number of Copies** section allows you to enter how many copies of each unique label you want to print.

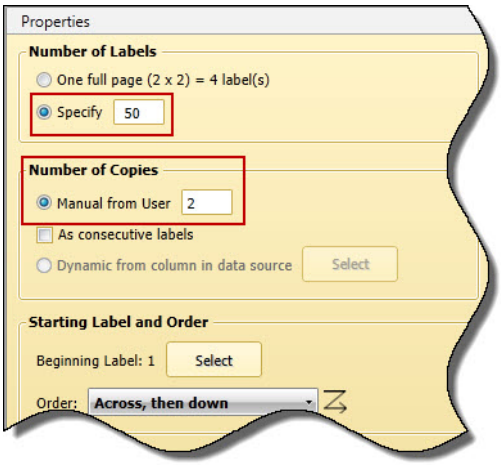
- **Manual from User** - The number of copies of each label is determined by the user entering a value in the **Manual from User** text field. The default value is 1, meaning one copy of each label. This field is always used to determine the number of copies if no objects are mapped to an external data source.

Examples - Specifying the Number of Labels and Copies

Example 1: A label is setup with **Numeric Serialization** to produce a series of labels (1 through 500). If you enter 50 in the **Specify** box, the first fifty serialized labels will be printed.



If you enter 50 in the **Number of Labels - Specify** box and 2 in the **Number of Copies - Manual from User** box, 2 copies each of the first 50 serialized labels will be printed, resulting in 100 physical labels.



Example 2: The label is pulling data from an external data source. If you have 3 records in the data source and you enter 5 in the **Number of Labels - Specify** box, you will get 15 labels. 3 records x 5 labels each = 15 labels. Now if you also enter 2 in the **Number of Copies - Manual from User** box, you will end up with 30 labels printing. 3 records x 5 labels each = 15 x 2 copies = 30 labels.

This is especially useful if you are **creating enumerated labels with serial numbers**. If you have multiple boxes of the same item, and each item has a unique serial number, you can print labels that specify 1 of N with N being the number of boxes.

Example 3: If you are using an external data source and want one label for each record in your data source, enter 1 in the **Number of Labels - Specify** box.

- **As consecutive labels** - If you enter a value greater than 1 in the **Manual from User** text field, you can select the **As consecutive labels** checkbox to indicate you want all copies printed together, one after the other. (Rather than all of one copy printing, followed by all of a second copy.)

  Note: As consecutive labels is always selected if you have checked **Dynamic from column in data source**, **As consecutive labels**.

  Example - Printing Copies as Consecutive Labels

  You have a label connected to an external data source containing 2 records. If you print:

  - **With the As consecutive labels checkbox selected and 2 entered in the Manual from User field:** 2 copies of the first label will print, followed by 2 copies of the second label and 2 copies of the third label.

  - **With the As consecutive labels checkbox unchecked and 2 entered in the Manual from User field:** One copy of all labels will print, followed by the second copy of all labels.

- **Dynamic from column in data source** - Select this option if you want to control the number of copies on a label-by-label basis. The number of copies for the labels will be determined by an associated column in the external data source. The associated column must contain a numeric value.

Example - Using the Dynamic from Column Option

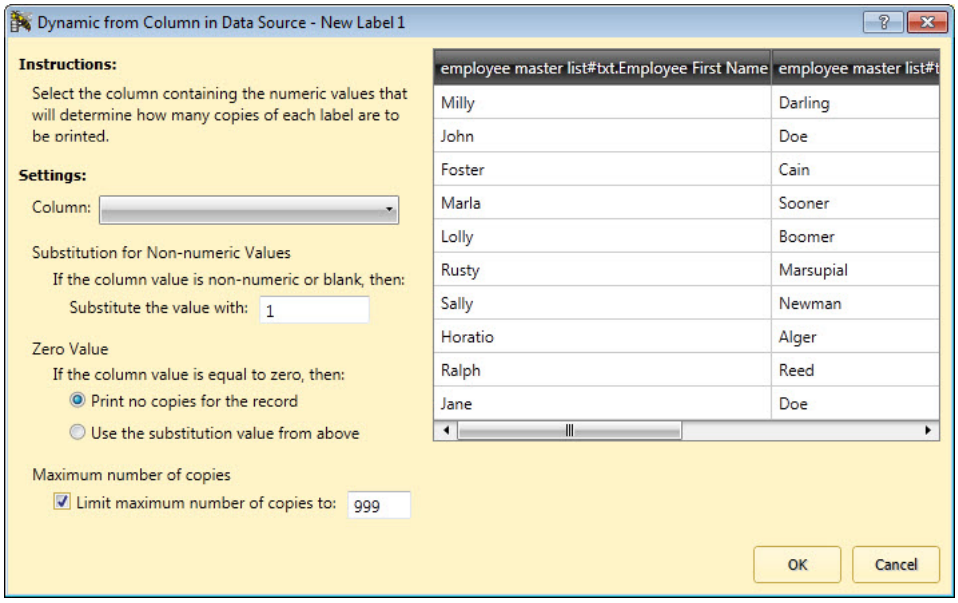
An Excel spreadsheet containing data columns mapped to multiple label objects could be modified to include an additional column in which the user specifies the number of copies Labeler is to print for each record. Each record can have a different number of copies specified in this column.

You might find that data already existing within an External Data Source is ideal for controlling the number of copies to print of each label - the quantity column of an inventory database could be used for printing item labels, for example.

Steps for Using the Dynamic from Column Option

Note: You should already have an external data source setup for your label via the **Data tab** and bound to at least one object.

1. Select the **Dynamic from column in data source** checkbox.
2. Click the **Select** button. The **Dynamic from Column in Data Source** screen appears:



This screen displays the first few rows of the data source associated with this label file.

3. Select the column from which you want to pull the number of copies from the **Column** drop down menu (the column must be numeric).

4. Next, in the **Substitute the value with** field, enter the number of copies to print if rows of the selected column are blank or contain non-numeric values.

5. The next section applies if the value is equal to zero. You can select to:

   Print no copies for the record - this option means no labels will be printed if the value equals zero.

   Use the substitution value from above - this is the number you entered in the **Substitute the value with** field.

6. Finally, you can limit the maximum number of copies to a specified amount. Labels will not be printed over this amount even if the number in the associated column is greater. The default is 999.

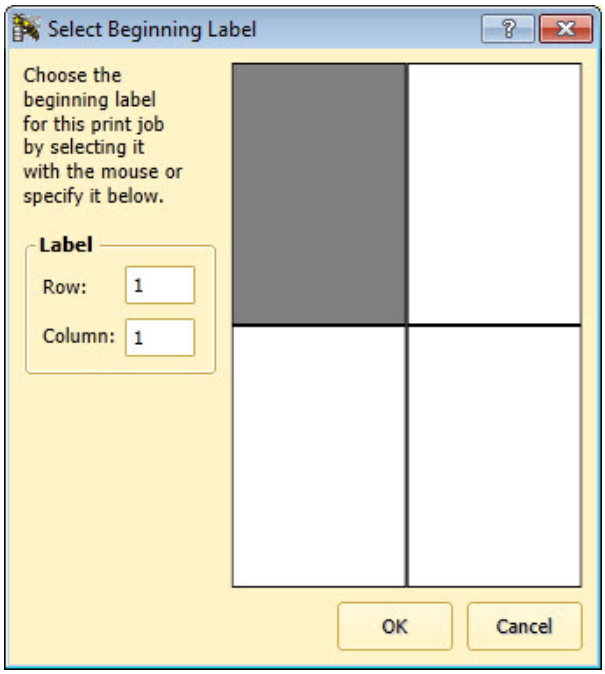
7. Click **OK** on the **Dynamic from Column in Data Source** when you are finished entering information.

5.1.3 Print Tab Properties Box - Starting Label and Order

- **Beginning Label** - This option allows you to select where on the page of labels you want to start printing. This is a useful feature if you want to continue printing on a partially printed label sheet.

  To use this feature:

  1. Click the **Select** button next to the **Beginning Label** field. The **Select Beginning Label** field appears.



     The preview pane shows how many labels are on the page (as per the label format you selected on the **Page Setup** screen).

  2. Click on the label in the preview pane where you want to start printing. Or, you can enter the **Row** and **Column** number in the **Label** fields.

  3. Click **OK** when you are done making your selection. The **Print Preview** pane on the **Print** tab will update to reflect your selection.

- **Order** - You can use this feature to tell Labeler in what order to print the labels on the page. Your options are:

  Across, then down - this tells the printer to start at the left side of the page, print across, then go down one row and across.
  Down, then across - this tells the printer to print all the way down the column on a page, then across to the next column and down.

5.1.4 Print Tab Properties Box - Data Source

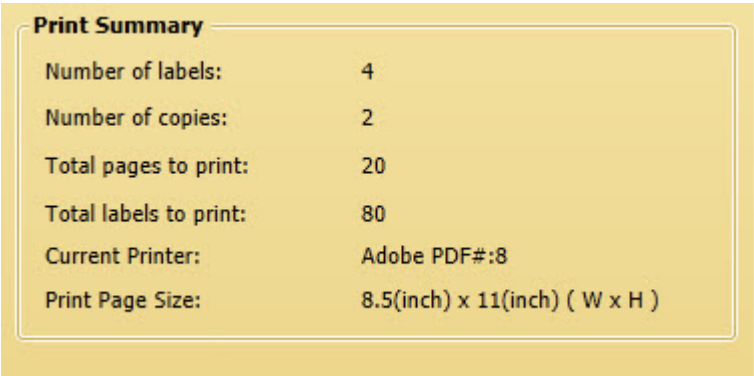
The **Data Source** section allows you to limit the number of rows contained in this print job. This section contains two options:

Max Rows - If your data source contains many rows, you can set how many you want to print at a time by entering a value in the **Max Rows** field. The default value is 50.

Prompt for Filter Values - If you want to be prompted to enter filter values.

5.1.5 Print Tab Properties Box - Print Summary

This section displays a summary of the print options you have selected.


Print Summary
Number of labels: 4
Number of copies: 2
Total pages to print: 20
Total labels to print: 80
Current Printer: Adobe PDF#:8
Print Page Size: 8.5(inch) x 11(inch) (W x H)

- **Number of labels** - Indicates the number of unique, physical labels.
- **Number of copies** - Indicates the number of copies of each label.
- **Total pages to print** - The total number of label pages that will print.
- **Total labels to print** - The **Number of Labels** x **Number of Copies**. This is the total number of labels that will print based on your settings.
- **Current Printer** - The printer you currently have selected for label printing. You can change this by clicking the Print button and selecting a different printer.
- **Print Page Size** - The size of the label page you selected on the **Page Setup** screen (via the **Layout** icon).

5.2 Page Setup Screen

In this topic:

Access and Use the Page Setup Screen
Create a Custom Layout
Copy a Layout
Delete a Layout

The **Page Setup** screen allows you to specify label placement on the page and the page size. You can choose a custom layout or use one of the predefined Avery label templates.

Wasp Labeler contains a predefined set of Avery label templates.

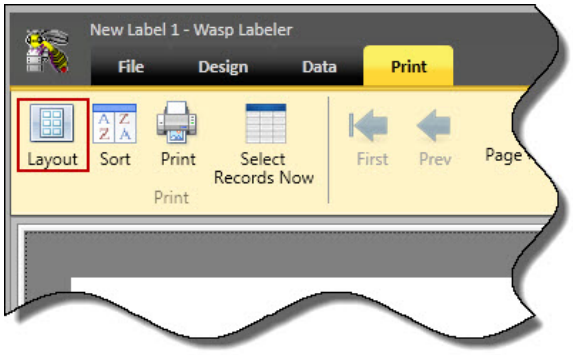
The available predefined families of templates are:

- Avery Dot Matrix
- Avery Ink Jet
- Avery Laser
- One Up Labels
- W - 300/305
- E - 600/606

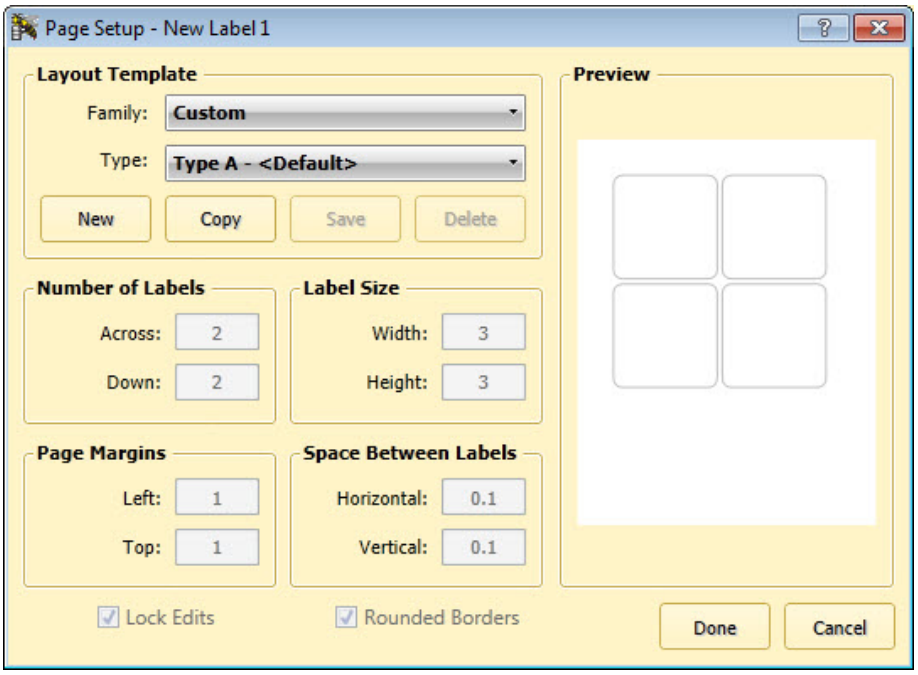
5.2.1 Access and Use the Page Setup Screen

1. On the **Design** tab, select **Layout**.

Or, on the **Print** tab, select **Layout**.



The **Page Setup** screen appears:



2. On the **Page Setup** screen, select the label you want to create from the **Family** and type drop down menus. You can choose **Custom Layout** or one of the **Predefined Label Layouts**.

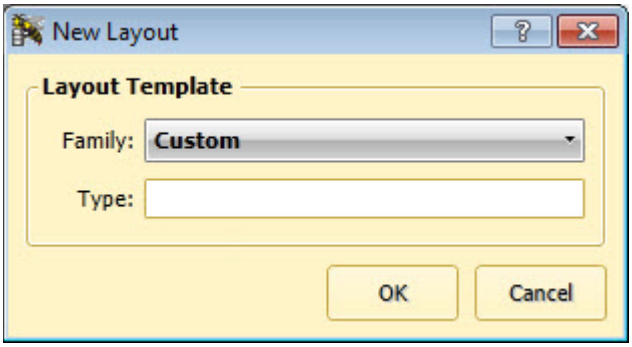
3. Click **Done** on the **Page Setup** screen.

5.2.2 Create a Custom Layout

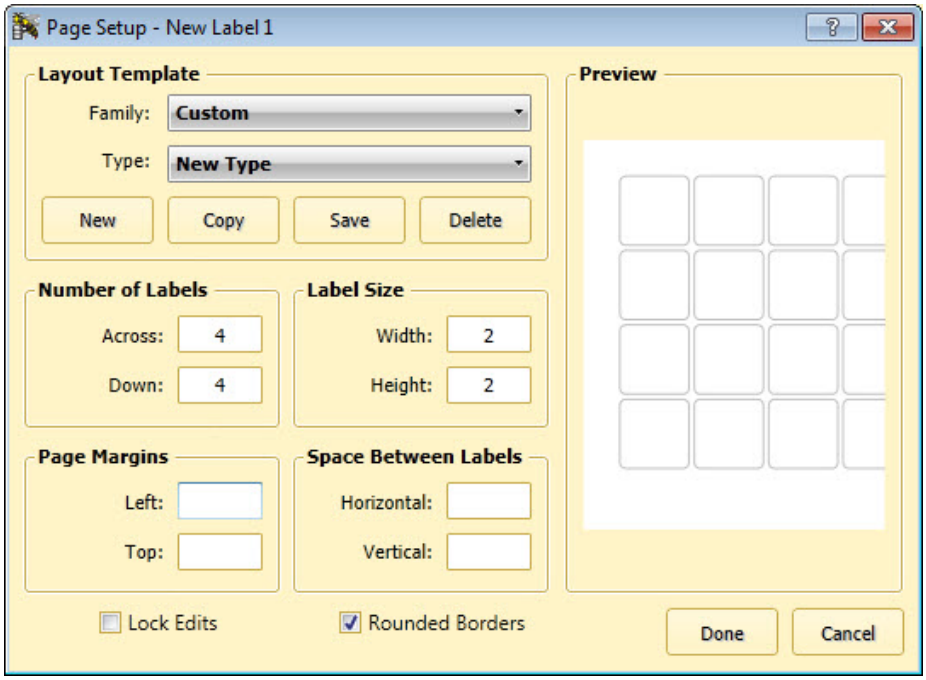
1. Select **Custom** from the **Family** drop down menu.

2. Select the **Type** of label from the **Type** drop down menu. By default, Type A is selected (this is the only predefined custom type). If you want to use the settings in Type A, click **Done**. You have completed your selection on the **Page Setup** screen. If you do not want to use the settings in Type A, proceed to Step C.

3. Click **New**. The **New Layout** screen appears.



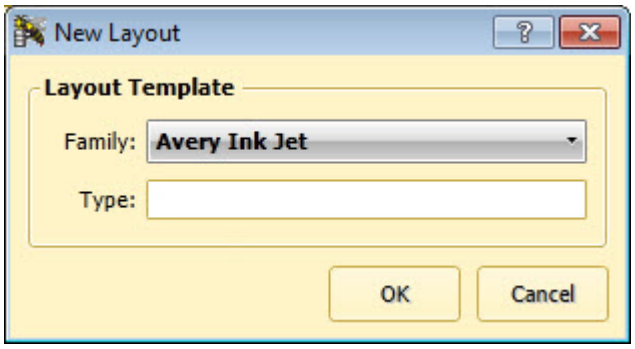
4. Enter a name for your new layout type and click **OK**. Now the fields on the **Page Setup** screen are enabled allowing you to enter custom **Number of Labels**, **Label Size**, **Page Margins** and **Space Between Labels**. Notice that as you enter new data into these fields the preview display on the right updates to reflect your changes.



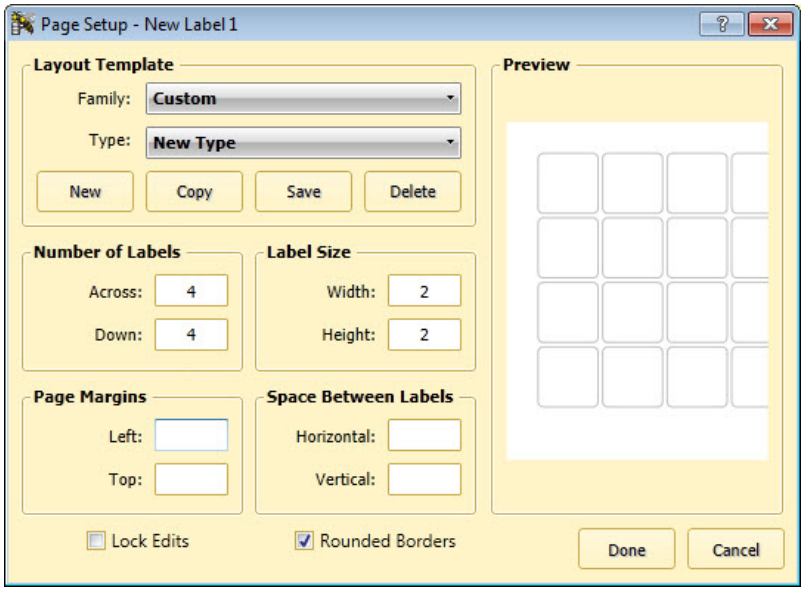
5. If you do not want changes made to your custom layout select the **Lock Edits** checkbox.
6. Select **Rounded Borders** if the labels have rounded borders. Uncheck this checkbox for square borders.
7. Click **Save** to save your new layout template.

5.2.3 Copy a Layout

1. Select the layout you would like to copy from the **Family** and **Type** drop down lists.
2. Click **Copy**. The **New Layout** screen appears.



3. Enter a name for your new layout type and click **OK**. Now the fields on the **Page Setup** screen are enabled allowing you to enter custom **Number of Labels**, **Label Size**, **Page Margins** and **Space Between Labels**. Notice that as you enter new data into these fields the preview display on the right updates to reflect your changes.



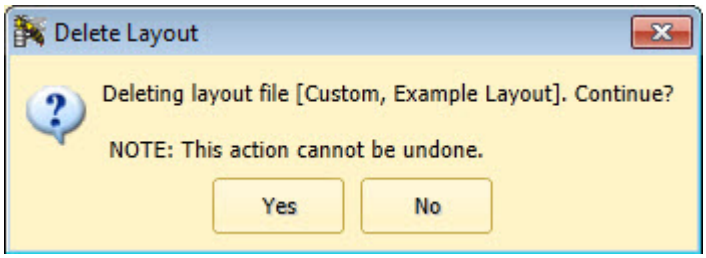
4. If you do not want changes made to your custom layout select the **Lock Edits** checkbox.

5. Select **Rounded Borders** if the labels have rounded borders. Uncheck this checkbox for square borders.

6. Click **Save** to save your new layout template.

5.2.4 Delete a Layout

1. Select the layout you would like to delete from the **Family** and **Type** drop down lists.
2. Click **Delete**. The **Warning** screen appears.



3. Click Yes to delete the layout. Click No to cancel the delete process.

Chapter 6 - Activating Wasp Labeler

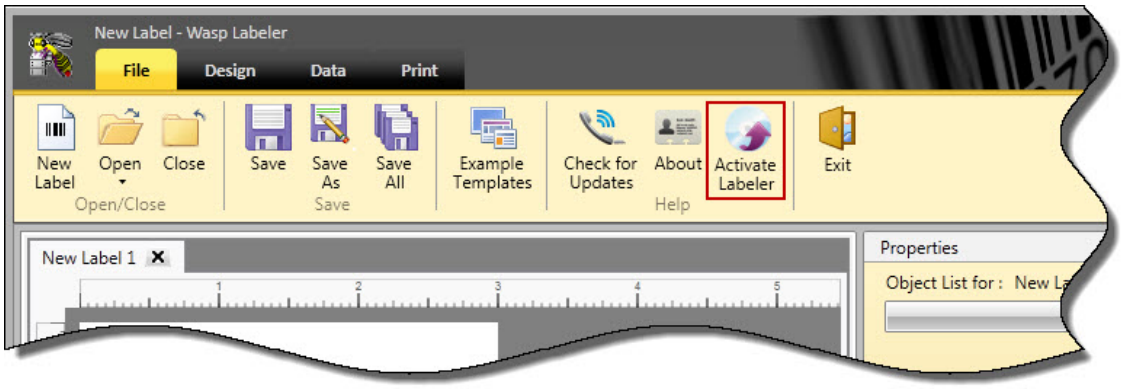
In this topic:

[Activating Wasp Labeler](#)
[Updating Your License](#)

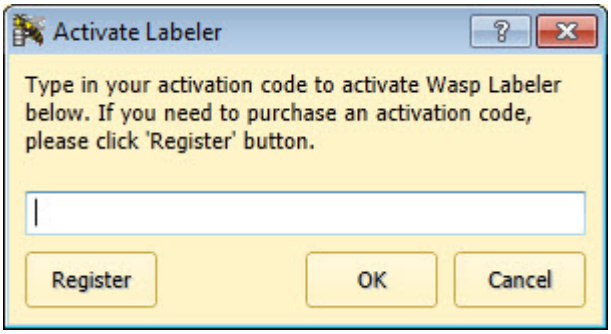
You can run Wasp Labeler in "Demo" mode for 30 days. During that time, an icon will appear on the File tab toolbar allowing you to enter an activation key. Wasp Labeler will cease to function if an Activation Code has been entered within 30 days of product installation.. If you would like to extend the trial period beyond thirty days, please contact the Sales department at sales@waspbarcode.com.

6.1 Steps to Activate Wasp Labeler:

1. On the **File** tab, click the **Activate Labeler** icon.

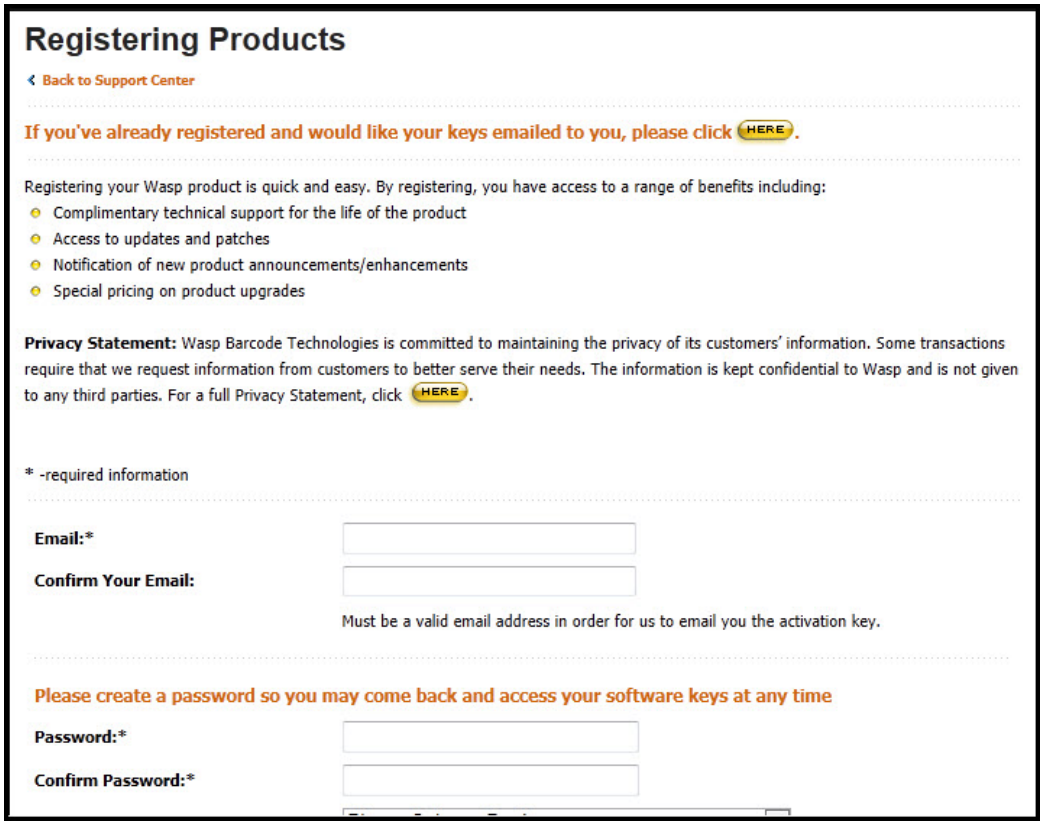


The **Activate Labeler** screen appears.


Activate Labeler
Type in your activation code to activate Wasp Labeler below. If you need to purchase an activation code, please click 'Register' button.
Register
OK
Cancel

2. Type in the activation code, then click the **Register** button.

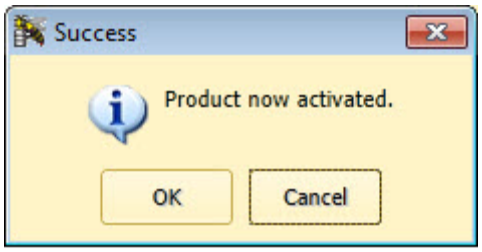
The Registering Products page from the Wasp Barcode Technologies website appears.


Registering Products
Back to Support Center
If you've already registered and would like your keys emailed to you, please click HERE.
Registering your Wasp product is quick and easy. By registering, you have access to a range of benefits including:
Complimentary technical support for the life of the product
Access to updates and patches
Notification of new product announcements/enhancements
Special pricing on product upgrades
Privacy Statement: Wasp Barcode Technologies is committed to maintaining the privacy of its customers' information. Some transactions require that we request information from customers to better serve their needs. The information is kept confidential to Wasp and is not given to any third parties. For a full Privacy Statement, click HERE.
* -required information
Email:*
Confirm Your Email:
Must be a valid email address in order for us to email you the activation key.
Please create a password so you may come back and access your software keys at any time
Password:*
Confirm Password:*

3. Enter your Registration information.

   Note: If you want to register your product later, click **OK** on the **Activate Labeler** screen after entering your Activation Code.

4. Click **OK** on the **Activate Labeler** screen. A **Success** screen appears:

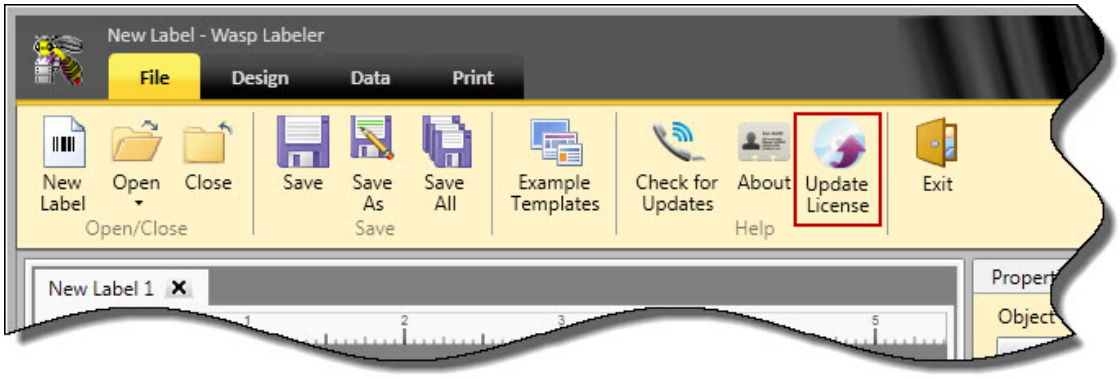


   Click **OK** on the **Success** message screen.

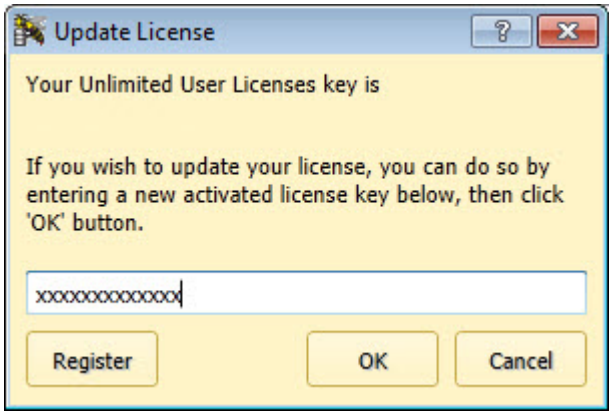
   After activation, the **Activate Labeler** icon changes to **Update License.**

6.2 Updating Your License:

1. (After product activation) On the **File** tab, click the **Update License** icon.

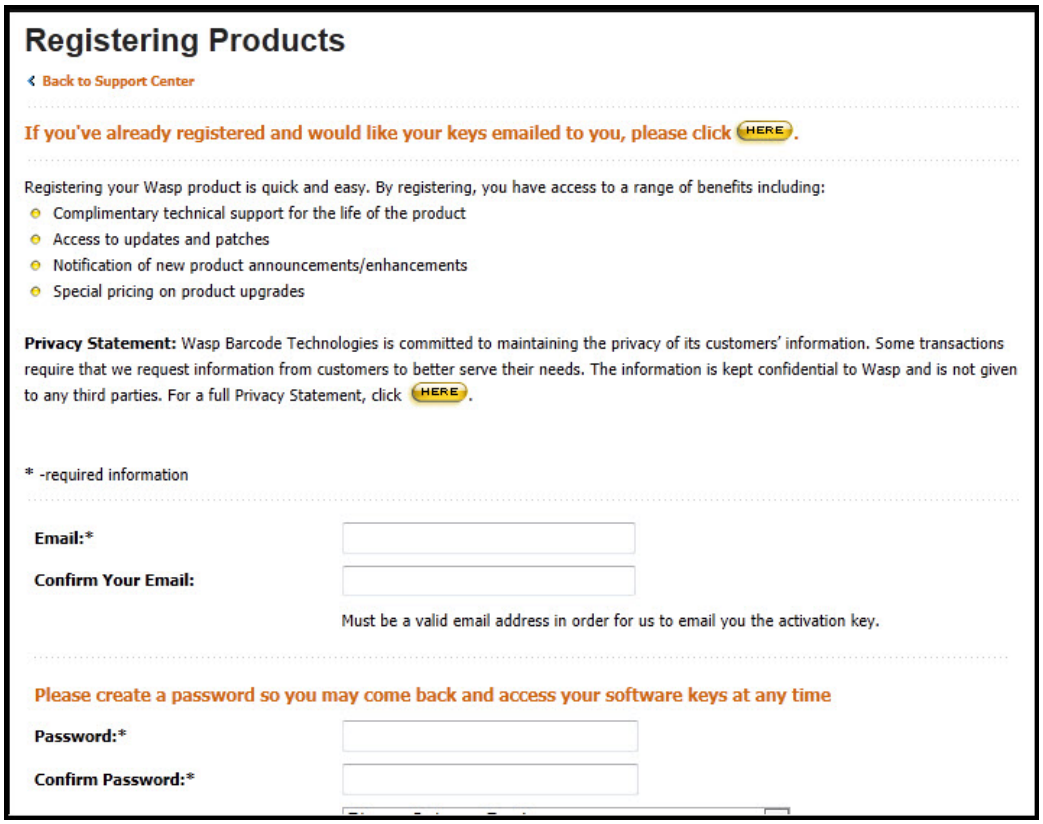


The **Update License** screen appears.


Update License
Your Unlimited User Licenses key is
If you wish to update your license, you can do so by entering a new activated license key below, then click 'OK' button.
xxxxxxxxxxxxx
Register
OK
Cancel

2. Type in the new activation code, then click the **OK** button.
3. You can also click the Register button to register your product if you did not do so at activation.

The Registering Products page from the Wasp Barcode Technologies website appears.


Registering Products
Back to Support Center
If you've already registered and would like your keys emailed to you, please click HERE.
Registering your Wasp product is quick and easy. By registering, you have access to a range of benefits including:
Complimentary technical support for the life of the product
Access to updates and patches
Notification of new product announcements/enhancements
Special pricing on product upgrades
Privacy Statement: Wasp Barcode Technologies is committed to maintaining the privacy of its customers' information. Some transactions require that we request information from customers to better serve their needs. The information is kept confidential to Wasp and is not given to any third parties. For a full Privacy Statement, click HERE.
* -required information
Email:*
Confirm Your Email:
Must be a valid email address in order for us to email you the activation key.
Please create a password so you may come back and access your software keys at any time
Password:*
Confirm Password:*

4. Enter your Registration information.

Chapter 7 - Running Labeler from a Command Line

7.1 Application Execution

The Wasp Labeler application can be executed from the command line (i.e. Run Command). You must specify the directory where the Wasp Labeler application was originally loaded and the appropriate directory and filename of the LAB file to be opened. Multiple files can be opened using a single command.

Syntax
Wlab32[**.exe**] [*path/filename*] [**-p**] [-**l** *n*] [-**c** *m*] [**-q**] [**-h**] [**-?**] [-**help**]

Parameters Description

Parameter	Description
-p	Opens the specified LAB file and prints it. (**Note:** Only one file can be printed from the command line at a time.)
-l *n*	Prints 'n' labels (optional, default=1). (**Note:** '-p' parameter required.)
-c *m*	Prints 'm' copies (optional, default=1). (**Note:** '-p' parameter required.)
-q	Launches the application in quiet mode (i.e. does not show the Welcome screen on startup, does not show 'Objects outside label border' warning message)
-h	Displays a command line help window. (Same as "-?" and "-help".)
-?	Displays a command line help window. (Same as "-h" and "-help".)
-help	Displays a command line help window. (Same as "-?" and "-h".)
-u	Unloads the running Wlab32.exe (i.e., closes the application)

Example:
C:\...\Labeler\Wlab32.exe C:\temp\LABfilename.lab -p -u
C:\...\Labeler\Wlab32.exe C:\temp\LABfilename.lab -p -c 6 -u
C:\...\Labeler\Wlab32.exe C:\temp\LABfilename.lab -p -l 10 -u
C:\...\Labeler\Wlab32.exe C:\temp\file1.lab C:\temp\file2.lab -u
C:\...\Labeler\Wlab32.exe -?

Note: In Windows 98 and Me, the command interpreter will not wait for Labeler to exit before executing the next command in a batch file. A small utility called sleep.exe can be found in the .\Labeler folder which can be used to delay execution of statements following any call to wlab32.exe. It uses one argument; a numeric value that specifies the number of seconds to wait. For example:

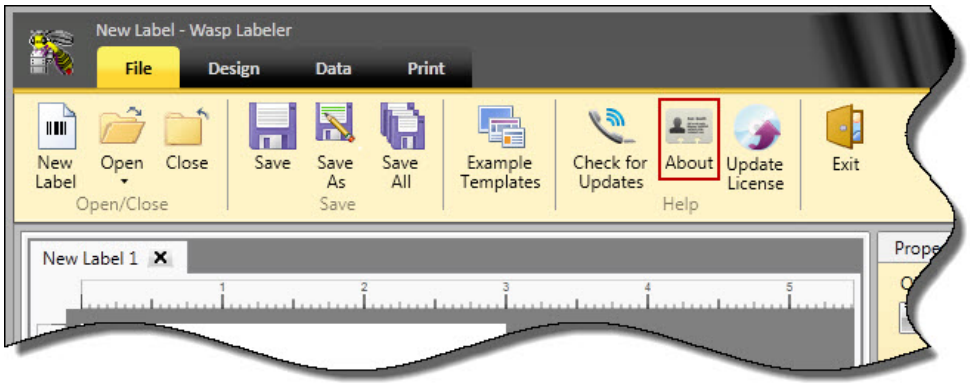
C:\...\Labeler\Wlab32.exe C:\temp\LABfilename.lab -p -u
C:\...\Labeler\sleep 10
C:\...\Labeler\Wlab32.exe C:\temp\LABfilename.lab -p -c 6 -u
C:\...\Labeler\sleep 10
C:\...\Labeler\Wlab32.exe C:\temp\LABfilename.lab -p -l 10 -u
C:\...\Labeler\sleep 10
C:\...\Labeler\Wlab32.exe C:\temp\file1.lab C:\temp\file2.lab -u

Chapter 8 - About Screen

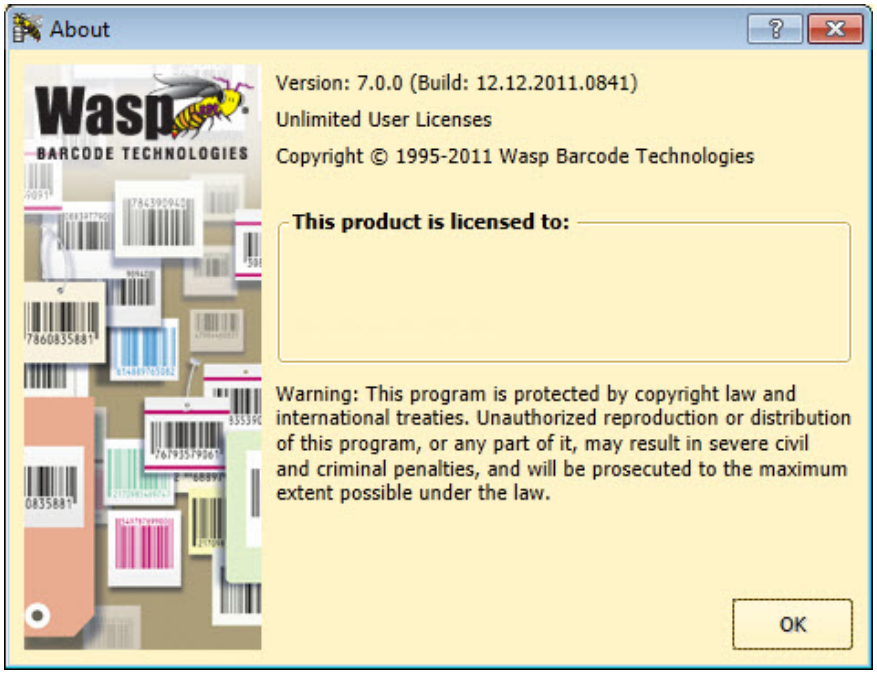
The **About** screen allows you to view program version and license details. The serial number assigned to this product appears here as well.

8.1 Using/Viewing the About Screen

1. On the **File** tab, click the **About** icon.



The **About** screen appears:


About
Wasp
BARCODE TECHNOLOGIES
Version: 7.0.0 (Build: 12.12.2011.0841)
Unlimited User Licenses
Copyright © 1995-2011 Wasp Barcode Technologies
This product is licensed to:
Warning: This program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any part of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.
OK

2. Click **OK** to close the **About** screen.

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